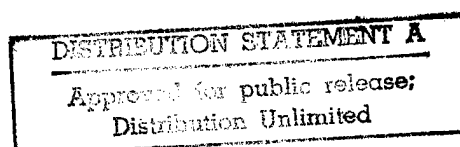Department of Defense

Military Manpower Training Report

FY 1994

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AUGUST 1993

Department of Defense

Military Manpower Training Report

FY 1994

Prepared by

Office of the Assistant Secretary of Defense
(Personnel & Readiness)

Department of the Army
Department of the Navy
Department of the Air Force

AUGUST 1993

FY 1994 MILITARY MANPOWER TRAINING REPORT

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APPENDICES

EXECUTIVE SUMMARY

The Military Manpower Training Report (MMTR) recommends student loads for each category of individual institutional training for each active and reserve component of the armed forces. The FY 1994 Military Manpower Training Report specifically supports the Department of Defense request for authorization of military student training loads for each component, active and reserve, of each Service for Fiscal Years 1994. Data elements for this report are compiled and submitted by the Services. Many calculations in this report are affected by rounding. The Department's requested training loads are listed below:

TABLE 1. Requested Training Load

	FY 1993	FY 1994
Active Components		
Army	54,667	52,628
Navy	48,900	44,207
Marine Corps	18,831	19,653
Air Force	26,112	26,802
Subtotal	148,510	143,290
Reserve Components		
Army Reserve	11,714	9,628
Army National Guard	10,884	10,384
Naval Reserve	1,129	1,142
Marine Corps Reserve	3,042	2,899
Air Force Reserve	3,107	3,290
Air National Guard	3,007	3,347
Subtotal	32,883	30,690
Total	181,393	173,980

The request load is derived from the President's Budget for FY 1994 and the Department of Defense request for authorization of military manpower strengths, active and reserve. Military student load authorizations enacted by Congress are subject to adjustments, as prescribed by the Secretary of Defense, to be consistent with service component end strengths authorized by Congress.

Definitions and Explanation of Training Load

This report discusses individual training and education within the Department of Defense provided by military service training and education institutions. Individual training and education, for purposes of this report, is divided into six categories:

- <u>Recruit Training</u>, given to enlisted entrants who have not had previous military service.

- <u>One-Station Unit Training</u>, an Army program that combines Recruit Training and initial Specialized Skill Training into a single course.

- <u>Officer Acquisition Training</u>, which leads to a commission in one of the Services.

- <u>Specialized Skill Training</u>, which prepares military personnel for specific jobs in the Military Services.

- <u>Flight Training</u>, which prepares prospective pilots and navigators for an initial operational assignment.

- <u>Professional Development Education</u>, relating to the advanced professional duties of military personnel or to advanced academic disciplines to meet Service requirements.

<u>"Training load" is the average number of students and trainees participating in formal institutional training and education courses during the fiscal year</u>.

The requirement for training is derived from the need to replace losses in each skill required in the military force structure. Losses, through separations, promotions and other causes, are projected at various points in the future and compared to the projected inventory of trained personnel. The difference between the requirement in each skill and the inventory becomes a demand for newly trained personnel. A phased input of students to the training establishments is then scheduled so that trained personnel, in each skill and skill level, are available at the proper time to replace the losses in those skills. The resulting workload is the basis of the training load addressed in this report.

The training load of each component is the measure of the amount of training required for members of that component, although some of the training will be done by other Services, in DoD schools or, in some cases, by institutions outside the Department of Defense. The training of members of the Reserve Components included in the report is the formal school training provided by the active training establishment to individual members of the Reserve Components while they are on active duty for training. This is primarily training provided to non-prior service personnel entering the Reserve Components.

An Overview of Training Load

For FY 1994 total requested DoD training load is 173,980. About 82 percent of this training load is for members of the active forces. The remaining 18 percent is training for members of the Reserve Components on active duty at training establishments operated by the Active Components. Whenever possible, Reserve Component personnel attend the same classes and are provided the same instruction as Active Force personnel.

Table 2 displays the distribution of total Active Force and Reserve Component load attributable to each of the major categories of training in FY 1993 and FY 1994.

TABLE 2. Distribution of Training Load

Training Category	FY 1993	FY 1994
Recruit Training	36,468	32,139
One-station Unit Training (Army)	9,058	9,128
Officer Acquisition Training	18,669	17,594
Specialized Skill Training	100,817	97,760
Flight Training	3,830	4,037
Professional Development Education	12,551	13,322
Total	181,393	173,980

The largest categories of training in terms of training load, are Recruit Training and Specialized Skill Training, both of which, along the Army One-Station Unit Training are strongly influenced by the number of enlisted non-prior service accessions. Specialized Skill Training is the largest training category for FY 1994 with 56 percent of the Active Force load and 59 percent of the Reserve Component load.

Table 3 divides the requested training load for FY 1993 and FY 1994 into two parts: (1) accession-related training which provides civilian entrants with the initial skills needed to perform the duties of their first military occupations; and (2) other training that is conducted to prepare members for more specialized duties in late stages of their military careers.

For FY 1994, training related to new accessions amounts to about 63 percent of all training programmed for the Active Forces. For the Reserve Components, the percentage is 82. The load dedicated to accession-related requirements highlights the priority the military services place on training new military members. Detailed information on each category of training is provided in Chapters III through VII of this report.

TABLE 3. Accession-Related Training
(Thousands)

	FY 1993		FY 1994	
	Active	Reserve	Active	Reserve
Accession Related Load				
Recruit	29.4	7.1	25.7	6.5
One-Station Unit Training	5.5	3.5	6.2	3.0
Officer Acquisition	16.1	2.5	15.6	2.0
Initial Skill (Off & Enl)	40.2	14.4	39.8	13.1
Undergaduate Flight	2.9	0.4	2.8	0.5
Subtotal	94.1	27.9	90.1	25.1
Other Training Load				
Other Specialized Skill	41.9	4.4	40.0	4.9
Other Flight	0.4	0.1	0.5	0.2
Professional Development	12.0	0.5	12.8	0.5
Subtotal	54.3	5.0	53.3	5.6
Total Load	148.4	32.9	143.4	30.7
Accession Related Load as a Percent of Total Load	63%	85%	63%	82%

Manpower In Support of Individual Training

Individual training requires manpower to conduct and support instruction, manage military schools and training centers, maintain training bases, and provide support to students, military staff members and their dependents. Chapter VIII of this report provides information about the military and civilian manpower needed for individual training. Manpower in support of individual training for FY 1993 and FY 1994 is shown by Service in the following table.

TABLE 4. DoD Manpower in Support of Individual Training
(End Strength, Thousands)

	FY 1993			FY 1994		
	Military	Civilian	Total	Military	Civilian	Total
Army	40	27	67	36	24	59
Navy	33	10	42	26	9	36
Marine Corps	12	2	14	12	2	14
Air Force	19	11	29	19	10	29
Total	103	49	152	93	45	138

NOTE: All individual training categories are included. The manpower includes instructors, instructional support, school/training center administration, student supervision and direct training support.

TABLE 5. DoD Manpower in Support of Individual Training by Function
(End Strength, Thousands)

	FY 1993			FY 1994		
	Military	Civilian	Total	Military	Civilian	Total
Conduct of Individual Training	75	18	93	61	17	78
Operating Support	27	29	56	30	27	57
Training Headquarters	1	2	3	1	2	3
Total	103	49	152	92	46	138

Funding for Individual Training

The funds required to support training for FY 1994 total $14.4 billion. This includes pay and allowances for the students and trainees undergoing training, pay and allowances of military and civilian personnel in support of training, operations and maintenance costs, and training related procurement and construction. Table 6 displays total training costs to include the Defense Health Program previously funded in the Services.

TABLE 6. Funding of Individual Training (All Appropriations) by Service
(Millions)

	FY 1993	FY 1994
Army	$ 6,151	$ 5,406
Navy	4,824	4,515
Marine Corps	1,381	1,302
Air Force	3,307	3,192
Total	$15,663	$14,415

Table 7 shows the funding for each of the major categories of training and for related support.

TABLE 7. Funding of Individual Training (All Appropriations)
by Category
(Millions)

	FY 1993	FY 1994
Recruit Training	$ 1,516	$ 1,161
Officer Acquisition Training	530	511
Specialized Skill Training	4,866	4,138
Flight Training	2,332	2,175
Professional Development Education	964	906
Army One-Station Unit Training	352	269
Direct Training Support	768	738
Training Base Support	3,102	3,365
Training Management Headquarters	162	143
Reserve Component Pay and Allowance	1,072	1,009
Total	$15,664	$14,415

Funding estimates are based on data contained in DoD's Future Years Defense Program (FYDP). The MMTR is consistent with resource estimates in the President's Budget, the justification material submitted to the Congress, the FYDP and internal DoD management documents. Further detail on training funding is provided in Chapter IX, Appendix C and Appendix D of this report.

Congress has expressed a specific interest in the Operations and Maintenance appropriations for individual training and education. As a result, Appendix D provides further details of the Operations and Maintenance Overview.

Trends in Individual Training

This section provides information on the five-year trend of individual training load, workload, manpower and funding. Three years of actual data are provided to compare with the two budget year-estimates. It should be noted that significant decreases in training load were made in FY 1991 and FY 1992.

Table 8 shows the FY 1990 to FY 1994 trend in training load for each Active and Reserve Component.

TABLE 8. Active and Reserve Training Load Trends by Service
(Thousands)

	Actual			Estimates	
	FY 90	FY 91	FY 92	FY 93	FY 94
Active Components					
Army	71.4	54.4	52.9	54.7	52.6
Navy	60.5	57.2	50.9	48.9	44.2
Marine Corps	20.0	18.2	16.7	18.8	19.7
Air Force	30.5	25.8	26.6	26.1	26.8
Subtotal	182.4	155.6	147.1	148.5	143.3
Reserve Components					
Army National Guard	17.6	12.2	10.6	10.9	10.4
Army Guard	15.3	11.2	10.6	11.7	9.6
Naval Reserve	2.3	2.1	1.6	1.1	1.1
Marine Corps Reserve	4.4	2.9	2.5	3.0	2.9
Air National Guard	2.2	2.1	2.9	3.0	3.3
Air Reserve	1.1	0.8	2.7	3.1	3.3
Subtotal	42.8	31.4	30.9	32.9	30.7
Total	225.2	187.0	178.1	181.4	174.0

Training workload accounts for all students trained by the Service training commands. This includes DoD military students, civilians, foreign students and students from other U.S. agencies.

TABLE 9. Training Workload Trends
(Thousands)

	Actuals			Estimates	
	FY 90	FY 91	FY 92	FY 93	FY 94
Army	107	79	76	81	77
Navy	65	61	54	52	46
Marine Corps	22	17	16	18	19
Air Force	35	28	32	32	33
Total	229	185	178	183	175

The next two tables demonstrate the Department's emphasis on improving training efficiencies. Although total training workload is approximately the same from FY 1992 and FY 1994, there has been a 15 percent reduction in manpower and a 13 percent reduction in funding over this period.

TABLE 10. Manpower Trends in Support of Training
(Combined Military and Civilian End Strengths, Thousands)

	Actuals			Estimates	
	FY 1990	FY 1991	FY 1992	FY 1993	FY 1994
Army	74	76	70	67	59
Navy	46	45	44	42	36
Marine Corps	15	14	15	14	14
Air Force	37	36	34	29	29
Total	172	171	163	152	138

TABLE 11. Individual Training Funding Trends
(All Appropriations, Billions)

	Actuals			Estimates	
	FY 1990	FY 1991	FY 1992	FY 1993	FY 1994
Army	5.9	6.0	6.5	6.2	5.4
Navy	5.0	5.1	5.2	4.8	4.5
Marine Corps	1.3	1.3	1.4	1.4	1.3
Air Force	3.3	3.4	3.4	3.3	3.2
Total	15.5	15.8	16.5	15.7	14.4

The Necessity for Individual Training

The primary objective of individual training is to provide the operational forces with personnel adequately trained to assume jobs in both Active and Reserve military units. Without effective training and education programs, the operational forces would be manned by personnel who are less than fully qualified for their jobs.

One of the cornerstones of readiness is the conduct of effective individual training at Service Training institutions. Unlike in past wars, we may not be able to count on extended periods of mobilization and training in response to future conflicts. Maintaining excellence in our individual training at Service training programs during peacetime results in a military force ready to respond in a national emergency.

I

INTRODUCTION

Training Requirements and Manpower Requirements

Requirements for training and education of military personnel are derived ultimately from national security objectives. The Military Manpower Training Report (MMTR), the Report of the Secretary of Defense to the Congress on the FY 1994 Budget, and the Defense Manpower Requirements Report, describe the progression from national security objectives to training load requirements. The Report of the Secretary of Defense explains the relationship between the threat and the forces designed to cope with the threat. The Defense Manpower Requirements Report describes the requirement for trained manpower to man the forces. The Military Manpower Training Report takes as a starting point the requirement for trained military manpower described in the Defense Manpower Requirements Report. These requirements relate to the demand placed on the military training establishment to supply trained manpower. This demand leads to the DoD request for military student training load authorizations for each component of the military services. The Defense Manpower Requirements Report and the Military Manpower Training Report are mutually supportive; however, the data in the two reports are not interchangeable or directly comparable. The principal reason for this difference is that the main focus of the Defense Manpower Requirements Report is upon requested strength on the last day of fiscal years (that is, end strength), whereas the main focus of the Military Manpower Training Report is upon requested student loads, a concept more comparable to average strength, or man-years, than to end strength.

Definition of "Individual Training and Education"

This report addresses the "individual training and education" activities of the Department of Defense; that is, the training of individual military members in formal courses conducted by organizations whose primary mission is training. This training is different from training activities conducted by operational units incidental to their primary combat, combat support, or combat service support missions. Training conducted within operational units (including the training of crews and teams) is not included in the training loads discussed in this report. In certain categories of training, on-the-job training (OJT) in units substitutes to some extent for all or part of formal course training requirements. OJT is also not included in the training loads discussed in this report.

The purpose of individual training is to give individual service members the skills and knowledge that will qualify them to perform effectively as members of operational military organizations. "Individual training" includes formal military and technical training and professional education conducted under centralized control, generally under the supervision of a Service training command or similar organization. The trainees and students undergoing the training and education addressed in the MMTR include Active Force members and Reserve Component members:

- Active Force trainees and students include officers, enlisted personnel, and service academy cadets and midshipmen.

- Reserve Component trainees and students include officers and enlisted members on active duty for training in formal school courses.

Some civilian students attend training in programs such as the Reserve Officers' Training Corps (ROTC) prior to their entry into a Service. These programs are also discussed in the report. However, training load authorizations are requested only for training and education of personnel while they are in active military status.

In general, the training discussed in this report is conducted under Major Defense Program VIII, "Training, Medical and Other General Personnel Activities," as presented in the Defense budget. Exceptions to these general rules are pointed out, where appropriate, in the body of the report.

Personnel undergoing individual training and education are classified for manpower accounting purposes as trainees, students, or cadets. The exceptions are: (1) personnel undergoing training while on temporary duty or temporary additional duty away from their unit of assignment, or (2) personnel being trained while enroute to new stations as transients. The term "trainees" is generally used for all enlisted personnel in Recruit Training and Initial Skill Training. "Cadets" (or "midshipmen" in the case of the Naval Academy) are members being educated at one of the service academies. All others receiving individual training and education are identified as "students." The distinction is not important for the purposes of this report, and the term "student" will be used where appropriate to describe members of all three classifications as well as temporary duty and transient personnel being trained.

FY 1994 Military Manpower Training Report and the FY 1994 Budget

It is important to emphasize that this MMTR, while consistent with the Department of Defense Budget for FY 1994, differs in structure from the budget justification. Budget justifications are focused on explaining how, by who, and why money is to be spent. Budgets for training and their justifications, therefore, are prepared by the Service that conducts the training programs. As a result, each Service must justify and obtain funds to train personnel from other Services in addition to its own personnel.

By contrast, the MMTR details and justifies the authorization request for training loads of the components of the parent Service whose members are undergoing the training. For example, Navy personnel being trained by the Air Force are treated in the MMTR as part of the Navy military student training load since they are being trained to fill Navy requirements. However, in O&M budget justification documents, Navy students attending Air Force schools are included in the Air Force training workload tables that justify Air Force training resources. This report contains summary tables of the manpower and funding required by the Services to conduct training based on estimated workloads.

Definitions of Major Training Categories

The portion of this report that discusses training loads in detail is organized into five chapters (Chapters III through VII), each of which addresses one of the major categories of training. These major categories are briefly defined below. Each chapter will more fully describe the training category and its sub-categories, the requested training loads, and the training methodology.

Recruit Training includes the introductory physical conditioning, basic military training, and indoctrination given to all new enlisted entrants in each of the Services. **One-Station Unit Training** (OSUT) is an Army training program that meets the training objectives of both Recruit and Specialized Skill Training in certain skills through a single course conducted by a single training unit. Since it includes elements of two categories of training, it is treated separately in this report.

Officer Acquisition Training, sometimes called pre-commissioning training, includes all types of education and training leading to a commission in one of the Services. Examples are programs of the service academies and officer candidate/training schools. Students not in active military status, such as Reserve Officers' Training Corps students, are excluded from requested loads in this report.

Specialized Skill Training provides officer and enlisted personnel with initial job qualification skills or new or higher levels of skill in their current military specialty or functional area. This category includes Army Advanced Individual Training and Navy Apprenticeship Training. Certain flight-related training, such as training of air traffic controllers, aircraft mechanics, and Air Force survival training, is reported under Specialized Skill Training. Officer acquisition programs are not included in Specialized Skill Training. The Marine Corps Combat Training (MCCT) phase of the Marine Battle Skills Training has been included in this category since FY 1989.

Flight Training provides the individual flying skills needed by pilots, navigators, and naval flight officers. The undergraduate flight training programs culminate in an officer or an Army warrant officer receiving "wings" and being categorized as a "designated" or "rated" officer. The undergraduate programs do not include the formal advanced flight

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training programs. Training conducted by Service advanced flight training organizations is beyond the scope of this report.

Professional Development Education includes educational courses conducted at the higher-level Service schools or at civilian institutions to broaden the outlook and knowledge of senior military personnel or to impart knowledge in advanced academic disciplines to meet Service requirements. Training of this type is required to prepare individuals for progressively more demanding assignments, particularly for higher command and staff positions. Programs include undergraduate and graduate education as well as courses not leading to a degree.

Training for senior non-commissioned officers, which has a broad professional content, is included in Professional Development Education rather than in Specialized Skill Training. Training of junior and middle-grade officers and non-commissioned officers includes specific branch or job-specific training rather than broad, common skills. Designation of this training varies by Service: for example, Navy leadership training, which is given to all grades of petty officers, is included in Specialized Skill Training. Non-commissioned officer training for more junior personnel conducted by the other Services is also included in Specialized Skill Training.

Determining Training Requirements and Training Load

The amount and type of training to be conducted in the Department of Defense is the product of a series of calculations that is described in Appendix A to this report.

In brief, the process begins with the determination of the requirement for military personnel with specific skills to fill positions in the approved or projected force. The requirement for trained manpower must then be measured against the available inventory of trained personnel projected at various points in the future.

This comparison, made for each military skill and skill level, establishes the need for training personnel to fill current and projected skill shortages. The requirement for the training of personnel to maintain the skill inventory becomes part of the workload of the Service training establishments. It is measured in terms of the average military training student load, or "training load." The training load for a given period is a measure of the amount of training to be accomplished. It is also a basis for establishing the requirement for resources (manpower, funds, materiel, and facilities) needed to support the training to be conducted by a Service.

Conceptually, the training load for a given period is the average student strength for the period, roughly equal to man-years. The total training load is the sum of the loads for all the individual courses. Training loads for individual courses are determined by the following factors:

1. The length of the training course

2. The desired number of graduates, or output, of the course.

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3. The number of entrants, or inputs, into the course required to obtain the desired output. This, in turn, depends on the pattern of attrition, or failures of entrants to graduate, for the course.

The training load is computed by the following formula:

$$\frac{\text{Entrants} + \text{Graduates}}{2} \times \text{Course Length}^{1/} = \text{Load}$$

$\underline{1/}$Training time is expressed as a fraction of a year

This is the basic method for computing the training loads discussed in this report. However, if attrition does not occur at a uniform rate (as is frequently the case) and the rate and phasing can be specified, more complex formulas and computer routines are used to estimate training loads.

Accuracy in Projecting Training Loads

The law requires that training load authorizations be requested well in advance of the period when the training is actually conducted. This statutory requirement implies the capability to predict future training loads with precision. In actuality, while loads for some long lead-time programs, such as the service academies, can be predicted with considerable accuracy, there are many uncertainties in projecting training loads. Some of the causes of uncertainty are:

1. Unanticipated changes in end strength levels and force structure, requiring adjustment of the skill inventory and the mix of courses in the training load.

2. Unpredictability of individual decisions to enlist, re-enlist, or retire. These factors may lead to unanticipated changes in the skill inventory, requiring changes in the composition or size of training loads, or to shifts of portions of the training load from one fiscal period to the following period.

3. Changes in attrition rates and patterns, causing unprogrammed fluctuations in training rates and loads.

By forecasting training needs as far as possible into the future and continuously reviewing and adjusting training inputs and loads, the Services adapt the training system to changing conditions. The MMTR represents a "snapshot" of the Services' training objectives early in their budget cycles. Extended projections based on that snapshot are subject to change. Adjustments are inevitable -- in fact, necessary -- for good management.

Training Load Request by Component and Category

The following two tables display by category the requested training loads for FY 1993 and FY 1994. The loads for each period are shown by component and by each of the major categories of training.

TABLE I-1. Military Training Student Loads, Fiscal Year 1993
By Component and Major Training Category

	Recruit	One-Station Unit Training	Officer Acquisition Training	Specialized Skill Training	Flight Training	Professional Development Education	Total
Active Forces							
Army	8,873	5,541	5,154	32,232	790	2,077	54,667
Navy	9,135	0	5,960	30,223	1,131	2,451	48,900
Marine Corps	7,789	0	341	8,741	540	1,420	18,831
Air Force	3,648	0	4,667	10,868	842	6,087	26,112
Subtotal	29,445	5,541	16,122	82,064	3,303	12,035	148,510
Reserve Components							
Army National Guard	1,954	2,294	95	6,289	187	65	10,884
Army Reserve	2,779	1,223	879	6,715	61	57	11,714
Naval Reserve	334	0	15	759	0	21	1,129
Marine Corps Reserve	1,417	0	166	1,395	0	64	3,042
Air Force Reserve	158	0	1,392	1,368	90	99	3,107
Air National Guard	381	0	0	2,227	189	210	3,007
Subtotal	7,023	3,517	2,547	18,753	527	516	32,883
Total	36,468	9,058	18,669	100,817	3,830	12,551	181,393

TABLE I-2. Military Training Student Loads, Fiscal Year 1994
By Component and Major Training Category

	Recruit	One-station Unit Training	Officer Acquisition Training	Specialized Skill Training	Flight Training	Professional Development Education	Total
Active Forces							
Army	6,917	6,169	4,768	31,370	793	2,611	52,628
Navy	8,067	0	5,848	26,732	1,134	2,426	44,207
Marine Corps	7,204	0	354	9,831	474	1,790	19,653
Air Force	3,474	0	4,617	11,831	902	5,978	26,802
Subtotal	25,662	6,169	15,587	79,764	3,303	12,805	143,290
Reserve Components							
Army National Guard	2,290	1,895	104	5,709	318	68	10,384
Army Reserve	2,178	1,064	328	5,932	79	47	9,628
Naval Reserve	361	0	15	745	0	21	1,142
Marine Corps Reserve	1,109	0	168	1,552	0	70	2,899
Air Force Reserve	158	0	1,392	1,540	100	100	3,290
Air National Guard	381	0	0	2,518	237	211	3,347
Subtotal	6,477	2,959	2,007	17,996	734	517	30,690
Total	32,139	9,128	17,594	97,760	4,037	13,322	173,980

TRAINING PATTERNS

General Description

The development of Service members through formal training, education, and practical experience generally follows a common pattern. New Service members (or, in the case of some Officer Acquisition Training, prospective Service members) first receive training designed to develop the basic attributes of the members of their Service. In most cases, a graduate of the initial training is then taught the skills required for a military job at the lowest skill level. Service members who do not remain beyond their initial enlistments or obligated terms of service do not, in most cases, receive additional formal training. Those who remain, the career members, will further develop their military knowledge and technical skills through experience in military jobs augmented with training or education needed to prepare them for more responsible positions. During their terms of service, military personnel are also encouraged, as their military assignments may permit, to improve themselves through off-duty and voluntary education programs. This combination of job experience, training and education is essential to the development of a military force that is capable of carrying out the national security mission.

Enlisted personnel usually work in relatively specialized skill fields, whereas the duties of officers, particularly those in the career force, call for broader expertise. For these reasons, the training and education patterns of officers and enlisted personnel differ and will be discussed separately in the following sections of this chapter.

In addition to training members of the active forces, the Service training establishments also train members of the Reserve Components. Reserve Component training, as part of individual training and education, involves Reservists and Guardsmen who are on active duty for formal school training. It does not include training of Reserve Component members provided under the following circumstances:

- Training received by individuals while on extended active duty serving with an active component (this training is included in active force aggregates);

- On-the-job training (OJT) or other individual training conducted by Reserve units;

- Training received while on annual active duty for training, except if provided through courses conducted by the active training establishment;

- Training received while on annual active duty for training, except if provided through courses conducted by the active training establishment;

- Training received while the individual is not in an active military status. (As a minor exception, some Reserve and Guard technicians attend military schools in Civil Service status.)

Training of members of the Reserve Components will comprise 18 percent of all individual training and education in FY 1993 and FY 1994.

Officer Training Patterns

Each Service has developed career patterns to prepare its officers to assume progressively higher command and staff responsibilities. These career patterns are composed of operational assignments during which the officers learn their profession through experience and periodic individual training and education. This provides them with the knowledge and skills needed for progressively more demanding follow-on assignments.

Officer training and education can be divided into three types. First, each Service maintains a progressive system of professional military education. This education is related more to the increasing responsibilities associated with career progression and promotion than to the individual's current assignment or specialty. The primary topics are the study of officership and the command and staff knowledge required of all professional military officers. The second type of education and training includes the many specific skill-producing courses that enable the officer to perform immediately upon assignment to a specialized or functional area. These courses vary in length from a few days to several months. They present, for the most part, strictly job-oriented training and are often orientation or refresher courses. Third, the Services provide selected officers with advanced academic education, either in-house or at civilian institutions, to meet specific requirements for officers educated in technical, scientific, engineering, and managerial fields. Officers also participate in a variety of other educational programs, many on a part-time basis, usually with the student sharing in the cost.

Training and education for career officers involves one or more of the types of training and education described above and follows the general patterns outlined in the next paragraphs. The patterns vary among the Services to some extent, and not all officers will participate in all of the schooling described. The number of officers participating in schooling becomes progressively smaller, and participation more selective and demanding, as officers move through their careers.

Generally, non-career officers (those who are expected to serve only an initial tour of active duty) receive training only at the entry level. In some cases, lengthy skill-oriented training (such as pilot training) results in a commensurably longer active duty obligation.

Entry Level Training. Initial officer training is Service-oriented and intended to prepare officers for duties at the lowest operational level, i.e., company, squadron, or ship. Newly commissioned Army officers will attend a basic course conducted by the particular branch of the Army, such as infantry, armor or artillery. Navy ensigns are usually assigned to school training based on their warfare specialty. All newly commissioned Marine officers attend the Basic School. A newly commissioned officer in the Air Force may go to Flight Training or training in a technical specialty.

Career Training. After some operational experience, the career officer requires further professional military education to prepare for service at the next level; for example, as a unit commander or a headquarters staff officer. In the Army this entails a return to branch school for more advanced training. Navy officers at this stage in their careers may attend a school in a specialty appropriate to their future assignments. A Marine Corps officer would normally attend the Amphibious Warfare School. An Air Force officer could be selected for the Squadron Officer School.

To satisfy Service requirements and as a further step in professional development, some officers are selected for participation in an advanced academic educational program at a civilian institution or at one of the two Service technical institutes, the Naval Postgraduate School and the Air Force Institute of Technology.

Intermediate Service Schools. As officers progress (between six and sixteen years of service, depending on Service criteria) they are ready for the next level of professional military education. These schools prepare officers for command and staff responsibilities in preparation for assuming higher responsibilities. Officers are competitively selected to attend each Service's program. The Armed Forces Staff College, a joint school, is also conducted at this level.

Senior Service Colleges. Little technical training is provided after the intermediate years. The final level of professional military education is that of the Senior Service Schools (the war colleges) for which attendance is highly selective. The Army, Navy, and Air Force each has a war college. In addition, there is the National Defense University, consisting of the National War College, the Industrial College of the Armed Forces, and the Capstone course for general officers. Officers graduating from the Senior Service Schools have the academic foundation required for command and staff positions at the highest level. The different curricula of these schools reflect the different missions of the Services. In some instances Reserve officers are able to attend Senior Service Schools in residence. The schools also offer a non-resident course that consists of correspondence studies and resident phases.

Enlisted Training Patterns

Recruit Training introduces new enlistees to military life. Following this indoctrination, they will follow one of three possible avenues dictated by their respective component's requirements:

1. Initial Skill Training that prepares the enlistee for an initial duty assignment;

2. Direct assignment to first duty unit based on skill already acquired in civilian life; or

3. Direct assignment to first duty unit for on-the-job training (OJT).

The Army One-Station Unit Training (OSUT) program is a variation of the first of these three avenues, since it combines Recruit and Initial Skill Training into a single course, followed by assignment to an operational unit.

The expected distribution of Active Recruit Training graduates for FY 1994 is shown in the following table.

TABLE II-1. Disposition of Active Recruit Training Graduates
FY 1994

	Army	Navy	Marine Corps	Air Force
To Initial Skill Training	99%	66%	98%	95.5%
To Duty Assignment (Civilian-Acquired Skill)	1%	N/A	0%	0.3%
To Duty Assignment (On-The-Job Training)	0%	34%	2%	4.2%
Total	100%	100%	100%	100%

As the table indicates, most enlisted personnel receive formal Initial Skill Training to provide them with a basic military skill. This combination of Recruit Training and Initial Skill Training (or Army One-Station Unit Training) turns civilians into service members qualified to fill positions in Active or Reserve units.

During their initial enlistment, personnel normally receive no further formal skill training but gain experience through on-the-job training in the work environment. The major exception is Navy training, conducted by fleet training centers in such shipboard duties as fire fighting.

After reenlistment, individuals may be selected for attendance at a journeyman-level course in their specific occupational area. This training emphasizes the appropriate military applications for the skills being taught. Most enlisted personnel are given the opportunity to attend Non-Commissioned Officer (NCO) professional development

training programs that prepare them for increased supervisory and leadership responsibilities.

Enlisted personnel attend regularly programmed specialized courses when circumstances require it: for example, where new equipment or systems are introduced into a Service, and senior level enlisted personnel need to be formally trained in operation and maintenance techniques. Selected Active and Reserve senior enlisted personnel attend schools, such as the Army's Sergeants Major Academy and Air Force's Senior NCO Academy, which are on the NCO level, similar in purpose to the Intermediate and Senior Service Schools in the officer education system.

RECRUIT TRAINING AND

ARMY ONE-STATION UNIT TRAINING

General Description

Recruit Training is the basic indoctrination training given to enlisted personnel upon their initial entry into military service. Recruit Training provides an orderly transition from civilian to military life, instruction in the required basic skills, and motivation to become dedicated and productive. Training in each of the Services emphasizes discipline, military rules, social conduct, physical conditioning and development of self-confidence. Beyond these common objectives, Recruit Training in each Service is designed to meet the particular training requirements of that Service that reflect the Service's mission. Graduates of Recruit Training have the basic knowledge and skills required to qualify them, after formal or on-the-job training in a particular skill, for service in an operational unit of the parent Service.

Army One-Station Unit Training (OSUT) is unique in that it combines Recruit Training and Initial Skill Training in certain skills into a single course conducted by a single training unit at a single training installation. OSUT therefore includes elements of two major training categories; consequently, it is treated separately at the end of this chapter. OSUT training loads are not included within the Recruit Training loads displayed in this chapter.

Recruit Training Loads

The training loads for FY 1988 through FY 1994 for each component of each Military Service are shown in Table III-1 on the following page. Note that the trend has been down over this period, caused by reductions in force structure. The slight increase in FY 1993 was needed to sustain the new force structure levels and support enlisted career force planning.

TABLE III-1. Recruit Training Load Trends

Service Component	FY 88	FY 89	FY 90	FY 91	FY 92	FY 93	FY 94
Army							
Active	10,091	11,102	11,559	7,049	7,690	8,873	6,917
Reserve	3,528	3,405	4,004	2,590	3,024	2,779	2,178
Natl Guard	3,559	3,516	4,058	2,531	2,432	1,954	2,290
Navy							
Active	14,211	12,045	10,085	10,419	8,997	9,135	8,067
Reserve	1,017	1,001	1,029	854	459	334	361
Marine Corps							
Active	7,689	7,572	7,605	7,092	6,185	7,789	7,204
Reserve	1,818	1,774	1,775	1,639	1,085	1,417	1,109
Air Force							
Active	4,684	4,713	4,308	3,856	3,884	3,648	3,474
Reserve	341	313	283	203	158	158	158
Natl Guard	470	472	469	360	381	381	381
DoD							
Active	36,675	35,432	33,557	28,416	26,756	29,445	25,662
Res/Gd Tot	10,733	10,481	11,618	8,177	7,539	7,023	6,477
Total	47,408	45,913	45,175	36,593	34,295	36,468	32,139

NOTE: In this table and in all subsequent tables in this report, training loads for the years prior to and including FY 1992 data are actual, FY 1993 and subsequent year data are estimates.

Table III-1 above does not include Army One-Station Unit Training loads.

Recruit Training

The following table displays the average Recruit Training loads for each year from FY 1991 to FY 1994 and, for FY 1993 and FY 1994, the number of entrants (input) and number of graduates (output). Data are shown separately for each component of each Service.

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TABLE III-2. Recruit Training Input, Output and Load

Service Component	FY 91 Load	FY 92 Load	FY 93			FY 94		
			Input	Output	Load	Input	Output	Load
Army								
Active	7,049	7,690	57,775	54,072	8,873	45,005	42,072	6,917
Reserve	2,590	3,024	17,988	16,865	2,779	14,064	13,171	2,178
Natl Guard	2,531	2,432	12,643	11,829	1,954	14,826	13,811	2,290
Navy								
Active	10,419	8,997	59,855	54,468	9,135	52,857	48,100	8,067
Reserve	854	459	2,191	1,994	334	2,364	2,151	361
Marine Corps								
Active	7,092	6,185	34,937	29,351	7,789	30,815	28,516	7,204
Reserve	1,639	1,085	6,179	5,473	1,417	4,800	4,251	1,109
Air Force								
Active	3,856	3,884	31,500	29,295	3,648	30,000	27,900	3,474
Reserve	203	158	2,000	1,970	158	2,000	1,970	158
Natl Guard	360	381	4,000	3,900	381	4,000	3,900	381
DoD								
Active	28,416	26,756	184,067	167,186	29,445	158,677	146,588	25,662
Res/Gd Tot	8,177	7,539	45,001	42,031	7,023	42,054	39,254	6,477
Total	36,593	34,295	229,068	209,217	36,468	200,731	185,842	32,139

Each Service conducts training for women recruits that is similar in concept to Recruit Training for males. The training syllabi are essentially the same for males and females. The major difference between the two courses is that women recruits generally receive less training in combat-oriented skills. The de-emphasis on combat skills in the Marine Corps causes the length of training for women to be somewhat shorter.

Rationale for Recruit Training

The underlying philosophy of Recruit Training is that the demands of military service are fundamentally different from those of civilian life. Military service requires a high level of discipline and physical fitness, a homogeneity of outlook, and an ability to live and work as part of a highly structured organization. There are few parallels in civilian society to the demands of military service. Each recruit, therefore, must be transformed into a member of the military team in order to function effectively in the military environment. The attitudes, habits, and basic skills formed in Recruit Training are the foundation of a cohesive military organization. Later training provides the skills and

knowledge needed for specific jobs; Recruit Training shapes civilian entrants into dedicated members of their Military Services with the potential for further development.

The major determinants of Recruit Training loads are the total number of people entering service who must receive Recruit Training (input), the length of the training course, and projected patterns of attrition. Course length and attrition are discussed later in this chapter. The following two sections discuss inputs: first, inputs of active duty personnel, and second, inputs of members of the Reserve Components on active duty for initial training.

Active Duty Input

The annual recruiting objective for active duty enlistees without prior military service is a function of the following factors:

1. Current enlisted trained strengths.

2. Number of enlisted personnel currently in training.

3. Projected enlisted losses through separations or other reasons (e.g., desertion, death, acceptance of a commission, retirement, etc.).

4. Projected prior-service enlistments, i.e., the return from civilian life of former Service members.

5. The projected requirement for trained enlisted personnel.

"Trained strength" is the number of personnel required to fill "structure" spaces (i.e., positions in military organizations that require specific grades and skills) and individual "pipeline" spaces, such as transients en route between assignments. The Defense Manpower Requirements Report contains a full discussion of how military manpower requirements are determined. The projected trained strength requirement is compared with the projected trained strength inventory to forecast future skill and strength imbalances. Future shortages that are not expected to be satisfied, either by prior service enlistees or Service members currently in skill training courses, determine the training output needed to man the force with trained personnel. To determine the necessary input to achieve this output, allowance must be made for the number of students entering a course of instruction who fail to complete it. The total input requirement is increased to compensate for expected attrition losses.

The training organizations attempt to manage inputs to achieve the most efficient use of training staff personnel and training facilities. However, the phasing of inputs may at times be varied in order to take advantage of the best recruiting periods for maintaining quality and quantity.

Historically, the highest accessions occur in June through September and in January, a reflection of the civilian academic calendar. Enlistments increase (1) shortly after high

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school graduation, (2) when peers return to school in the fall, and (3) after the results of the first term of college academic work are announced.

The Services must be able to accept most prospective enlistees when they are ready to enter service. Requiring enlistees to enter military service in phase with requirements and on an even flow-basis would result in the loss of many potential enlistees to other sources of employment. Accepting enlistees as they become available, however, requires a training structure capable of accommodating surges of enlistments.

Reserve Component Input

Persons enlisting in the National Guard and Reserve forces without active duty experience require the same Recruit Training as active duty enlistees, and for the same reasons. Recruit Training loads for the Reserve Components are based on the same factors as active force loads. Guard and Reserve trainees, while in Recruit Training, are mingled with active duty trainees in units so that their training is identical.

Reserve Component recruits form a significant part of the workload of the active Recruit Training establishment. Recruit Training for the Reserve and Guard will account for 19 percent of all DoD Recruit Training in FY 1993 and 20 percent in FY 1994. Reserve Component training accounts for 39 percent of all Army One-Station Unit Training programmed in the Department of Defense for FY 1993 and 32 percent in FY 1994.

Planning considerations for Reserve Component personnel are essentially similar to those for the active force. Detailed phasing of this training is complicated, however, by the additional consideration of civilian employment or school commitments for these personnel. For this reason, a pool of personnel who have enlisted but who have not yet attended initial training is normal. This backlog is kept within a reasonable size.

Course Length and Course Content

Enlisted training loads depend not only upon the numbers of entrants but also on the extent of skills required of entering enlisted personnel. Enlisted personnel attain those skills in Recruit Training and in Specialized Skill Training. Recruit Training course lengths are determined in part by how much of the required training is to be provided during the Recruit Training phase and how much is to be deferred to later training. Because of differences in their missions, the Services take somewhat different approaches in establishing the content and length of their Recruit Training courses.

Recruit Training in each of the Services covers four areas: (1) some in-processing and testing; (2) introduction into Service life; (3) instruction in military courtesy, discipline, and hygiene; and (4) fundamental military-related training involving physical fitness, military drill, and self-defense. In addition, each Service provides training in military skills that should be possessed by most members of that Service. The degree to which these Service-wide skills exist differs among the Services. This factor accounts for most of the differences in course content and, therefore, course length.

Length of the standard Recruit Training course in each Service is shown in the following table.

TABLE III-3. Recruit Training Course Length
(Weeks)

	Army	Navy	Marine Corps	Air Force
FY 1993	8	7	12	6
FY 1994	8	7	12	6

NOTE: Chart reflects average weeks of training. Actual course time may vary by a few days depending upon Service requirements and training location.

Army and Marine Corps Recruit Training differ from the Air Force and Navy programs because all recruits are given intensive physical conditioning and instruction in basic ground combat skills, including the use of individual weapons. The Army and Marine Corps train all enlisted personnel to achieve a basic level of qualification in ground combat skills during their Recruit Training program.

The Air Force is able to accomplish Recruit Training in six weeks because the curriculum concentrates on military indoctrination subjects. Relatively little training in Service-wide occupational skills is provided, since there are few common occupational skills needed by all Air Force enlisted personnel. In addition to indoctrinating recruits to military life, the Navy course includes phases designed to prepare them for conditions in a fleet environment and common duties found on board ships.

The average length of time spent in recruit status in any of the Services may be longer than the standard course lengths discussed above. Some recruits fall behind their peers because of medical problems. Others require remedial training. A recruit may be sent to a special training unit or recycled to a following class to repeat a portion of the course.

Enlisted members of the Reserve Components without prior service receive the same basic qualification training as active service members. Each non-prior service enlistee in the Reserve Components undergoes, as a minimum, the equivalent of twelve weeks of active duty training. This is accomplished by sending the enlistee through Recruit Training and, in most cases, on to Initial Skill Training. Many Army Guardsmen and Reservists are provided initial military training in certain occupational skills through One-Station Unit Training.

A split training option is available to the Reserve Components. This program normally separates Recruit Training from Specialized Skill Training. This option is limited to enlisted entrants who cannot attend all their required training in one block due to educational or occupational commitments. The Reserve member attends unit drill after completing Recruit Training and normally returns to active duty within one year to complete Initial Skill Training.

Attrition in Recruit Training

A final factor in the computation of loads is the projection of the rate and timing of attrition. Recruits may fail to complete training for medical reasons, inability to absorb the instruction, lack of motivation, disciplinary problems, or a variety of administrative causes, such as discharge for fraudulent enlistment or family hardship.

The table below shows projected attrition losses.

TABLE III-4. Recruit Training Attrition Projections
(Active and Reserve Combined)

	Army	Navy	Marine Corps	Air Force
FY 1993	6.3%	11.0%	9.8%	7.0%
FY 1994	6.5%	11.0%	9.8%	7.0%

The timing of attrition varies from situation to situation. In the case of slow learners or individuals who have difficulty in adjusting to military life, trainees usually are reentered or given special instruction. Those who do not respond adequately may not become attrition losses until late in the course.

Army One-Station Unit Training

The Army's One-Station Unit Training (OSUT) program combines Recruit Training and Initial Skill Training for certain skills into a single continuous course. Consequently, this report treats OSUT separately rather than arbitrarily breaking it into two segments.

OSUT loads for FY 1988 through FY 1994 are shown in the following tables.

TABLE III-5. OSUT Training Load

Service Component	FY 88	FY 89	FY 90	FY 91	FY 92	FY 93	FY 94
Army							
Active	9,057	9,018	8,337	6,401	4,939	5,541	6,169
Reserve	1,214	1,179	1,835	1,184	1,117	1,223	1,064
Natl Guard	3,199	3,211	3,846	2,873	2,340	2,294	1,895
Total	13,470	13,408	14,018	10,458	8,396	9,058	9,128

TABLE III-6. OSUT Training Input, Output, and Load

Service Component	FY 93			FY 94		
	Input	Output	Load	Input	Output	Load
Army						
Active	21,192	19,078	5,541	23,439	21,083	6,169
Reserve	5,138	4,761	1,223	4,398	4,050	1,064
Natl Guard	10,812	10,120	2,294	9,095	8,368	1,895
Total	37,142	33,959	9,058	36,932	33,501	9,128

Approximately one third of Army active and Reserve Component entrants are trained under OSUT.

In FY 1993 and FY 1994 there will be 49 different OSUT courses for six major skill areas described in Table III-7. In general, OSUT requires less training time than the separate Recruit Training and Initial Skill Training courses that it replaces. Table III-7 shows training time for OSUT occupational skill areas.

TABLE III-7. OSUT Training Time
in Weeks

Skill Area	Training Time
Infantry a/	14.3
Artillery	13.0
Armor	14.0
Engineer	13.0
Military Police	17.0
Chemical	20.0

a/ 11M soldiers require an additional 3 weeks
of training for heavy vehicle track qualifications.

The time required to complete Recruit Training and the Initial Skill Training in separate courses for these skills would be about 4 weeks longer, including the time required to move the trainee from one training organization to another. The shorter OSUT course lengths provide a significant saving in trainee man-years and, consequently, in trainee pay, allowances, and support costs.

OFFICER ACQUISITION TRAINING

General Description

Officer Acquisition Training consists of training and education programs leading to a commission in one of the Military Services. These programs fulfill the need both for junior officer entrants into the career force and for non-career junior officers in the force structure. Officer Acquisition Training programs produce officers for both the active forces and the Reserve Components.

ROTC and Health Professions Acquisition Programs

The total training loads in Table IV-2 on the following page do not include two types of Officer Acquisition Training: the Army, Navy, and Air Force Reserve Officers' Training Corps (ROTC) programs and the Armed Forces Health Professions Scholarship program. ROTC and Health Professions Scholarship students are not in active military status, whereas students who make up the training loads discussed in this report are either members of the active forces or members of the Reserve Components being trained on active duty by the active establishments. Although these two programs are not included in the requested training loads, they are discussed in this chapter to provide a complete account of Officer Acquisition Training. The following table shows the number of participants in these programs in the period FY 1991 through FY 1994.

TABLE IV-1. Average Enrollees, Senior ROTC

Service	FY 1991	FY 1992	FY 1993	FY 1994
Army	47,474	42,101	40,846	45,621
Navy	8,266	7,364	6,651	6,270
Air Force	14,012	11,873	9,621	10,115
Total	69,752	61,338	57,118	62,006

The figures shown above for Health Professions Scholarships are actuals for FY 1991 and FY 1992; FY 1993 and FY 1994 figures are those currently authorized by DoD from the total of 5,000 authorized scholarships.

Junior ROTC is a program designed to develop leadership qualities, good citizenship, and an understanding of the basic elements of national security among high school students. Despite its name, it is not an officer acquisition program since it does not result in a commission and its participants do not incur any military obligation. Junior ROTC is not included within training loads covered by this report.

TABLE IV-2. Total Officer Acquisition Training Load

Service Component	FY 88	FY 89	FY 90	FY 91	FY 92	FY 93	FY 94
Army							
Active	6,407	6,853	6,423	5,053	5,005	5,154	4,768
Reserve	1,388	1,177	1,758	1,272	1,273	879	328
Natl Guard	113	123	155	90	60	95	104
Navy							
Active	6,415	6,546	6,631	6,222	6,192	5,960	5,848
Reserve	68	68	15	15	16	15	15
Marine Corps							
Active	311	364	358	404	425	341	354
Reserve	272	247	187	113	169	166	168
Air Force							
Active	5,283	5,526	4,915	6,148	4,629	4,667	4,617
Reserve	20	20	8	15	1,259	1,392	1,392
Natl Guard	0	0	0	0	0	0	0
DoD							
Active	18,416	19,289	18,327	17,827	16,251	16,122	15,587
Res/Gd Tot	1,861	1,635	2,123	1,505	2,777	2,547	2,007
Total	20,277	20,924	20,450	19,332	19,028	18,669	17,594

Officer Requirements and Structuring the Officer Acquisition Program

Requirements for new officers, like requirements for new enlisted personnel, are a product of the need for officers in the projected force as compared to the projected future inventory of officers. Properly functioning programs fill the gross requirements for officer entrants for any given year and provide an even flow of sufficient new officers to each Service to avoid the emergence of unmanageable shortages and overages by age and grade in the future. Each of the Services uses a mix of sources for new officers.

Officer Acquisition Training may be divided into six separate programs:

Service Academies	Off-Campus Commissioning Programs
ROTC	Other Enlisted Commissioning Programs
Officer Candidate Schools	Health Professions Acquisition Programs

The mix of officer acquisition programs used must recognize the characteristics of each source. Some of the differing characteristics of current programs are: stable input, long lead-time; flexible input, short lead-time; high academic quality with comprehensive military indoctrination; and high level of technical skill. Additionally, consideration must be given to each program's ability to attract applicants, the quality of the graduates, and their probable retention and attrition. These differences and others are recognized and exploited in planning officer procurement.

The Service Academies present a long lead-time program that produces highly trained career military officers.

ROTC is also a long lead-time program and provides the largest single input of officers to the active duty force, although many of these officers will leave active duty and join the Reserve Components. In this manner, ROTC provides officers to support the total force, both active and reserve.

Officer Candidate/Training Schools provide the short lead-time commissioning source necessary to respond to immediate surges in officer requirements, since the programs can be expanded or reduced in a relatively short period of time.

The Off-Campus Commissioning Programs, such as the Marine Corps Platoon Leader Corps (PLC) program, are long lead-time programs that provide a student at four-year colleges or universities the opportunity to earn a commission by training only in the summer but without military responsibilities during the school year.

Other Enlisted Commissioning Programs are relatively long lead-time in nature and provide a source of officers who possess specific technical skills and who have a proven high rate of retention. The lead-time for Other Enlisted Commissioning Programs is generally shorter than for Service Academies or ROTC programs since most participants have previous college credits and require less time to complete their program.

In addition to the practical considerations discussed above, having a variety of officer commissioning sources opens officership opportunities to a wide segment of the population and provides advancement opportunities for highly qualified enlisted personnel.

Service Academies

The mission of each of the Service Academies (United States Military Academy, United States Naval Academy, and United States Air Force Academy) is to meet a portion of

the long-range requirement for career military officers. They provide instruction and experience to cadets or midshipmen so that they graduate with the knowledge and character essential to leadership and with the motivation to become career officers. Cadets and midshipmen receive a rigorous four-year undergraduate college education that includes a technically oriented core curriculum regardless of major. Successful completion of the specified academic, leadership and military requirements entitles the graduate to a Bachelor of Science degree and a Regular commission in one of the Military Services. Up to one-sixth of each year's Naval Academy graduates may be commissioned in the Marine Corps.

The Service Academies are distinctive in that their curricula are specifically designed to prepare young men and women for duty as professional officers. The total curriculum at each Academy is designed to develop the qualities of character, intellect, and physical competence needed by the officer who may, in the course of a full career, be called upon to perform duties ranging from leading a small combat unit to advising the highest government councils. The curricula, which include the sciences, the humanities, and military and physical training, form the basis for further professional development or, when required, graduate education.

The enrollment of each of the Service Academies is established by law. This fact establishes stable training loads for the Academies. Training load data for the Service Academies are shown in Table IV-3.

TABLE IV-3. Training Input, Output, and Load, Service Academies

Service	FY 91 Load	FY 92 Load	FY 93 Input	FY 93 Grads	FY 93 Load	FY 94 Input	FY 94 Grads	FY 94 Load
Army	4,365	4,375	1,085	803	4,375	1,049	805	4,338
Navy	4,153	4,244	1,183	1,054	4,119	1,174	951	4,057
Air Force	4,433	4,300	1,195	943	4,200	1,290	991	4,100
Total	12,951	12,919	3,463	2,800	12,694	3,513	2,747	12,495

Each of the Military Departments sponsors an Academy preparatory school. Marine Corps and Coast Guard personnel attend the Navy school. The missions of these schools are to provide approximately one year of intensive instruction and guidance to selected enlisted personnel in preparation for entry to the Service Academies. Students compete for nominations by the Secretaries of the Military Departments and from other sources. The Naval Academy Preparatory School also provides instruction to candidates for the Marine Corps Enlisted Commissioning Education Program during the summer months. Training load data for the Academy preparatory schools is shown in Table IV-4.

TABLE IV-4. Training Input, Output, and Load, Academy Preparatory Schools

Service	FY 91 Load	FY 92 Load	FY 93 Input	FY 93 Output	FY 93 Load	FY 94 Input	FY 94 Output	FY 94 Load
Army	212	202	300	300	258	300	300	258
Navy	158	159	250	178	159	250	178	159
Marine Corps	11	8	15	11	11	15	11	11
Air Force	211	193	220	166	198	220	176	198
Total	592	562	785	655	626	785	665	626

ROTC Programs

ROTC is a long lead-time program that is the single largest source of officers for the Armed Forces. Like the Service Academies, ROTC is used to provide a relatively constant input of officers for active duty. The program is currently conducted at over five hundred civilian colleges and universities throughout the nation. The Army, Navy, and Air Force each sponsor an ROTC program. Up to one-sixth of the Navy ROTC graduates may be commissioned into the Marine Corps. Scholarships and subsistence allowances authorized by law, in addition to conventional recruiting and advertising methods, are used to attract qualified students. Scholarships are awarded to young men and women who exhibit potential ability as officers and have interests in fields of projected Service needs.

There are both scholarship and non-scholarship, as well as two-year and four-year, ROTC programs. The curriculum of each program is tailored to the needs of the individual Services. For example, the Navy teaches the basics of ship navigation, while the Army teaches the fundamentals of ground combat and the Air Force provides basic instruction in aerospace history and doctrine. Each of the programs includes instruction in leadership, military customs and military history, and each program provides prospective officers with a gradual transition from the civilian environment to the military environment. Each ROTC program consists of a series of regularly scheduled academic classes throughout the school year combined with mandatory summer camps or cruises that are designed to give the student realistic military experience and a first-hand view of military life.

The ROTC scholarship continues to be an important incentive to attract exceptionally qualified individuals to ROTC. The rising cost of education makes the scholarship even more attractive. Currently, the following numbers of scholarships are authorized by law: Army- 12,000, Navy- 5,266, Air Force- 9,500. Due to resource constraints, the Navy will be able to fund only 5,174 scholarships in FY 1993. The Army will fund 8,600 scholarships and the Air Force 3,078 scholarships in FY 1993.

Reduced force structure requires fewer officers and the ROTC Program is being downsized accordingly. The Army now has 350 host institutions, the Navy has 53, and the Air Force has 147.

As noted at the beginning of this chapter, the ROTC program is not included in Service training loads because the students are not in an active military status. The following table shows the three Service ROTC programs for FY 1993 and FY 1994.

TABLE IV-5. Senior ROTC Programs

FY 1993 Service	Beginning Enrollments	Graduates	Average Enrollments	Average Number of Scholarship Enrollees
Army	42,087	39,605	40,846	8,601
Navy	6,551	1,597	6,651	4,605
Air Force	10,231	1,515	9,621	3,019
Total	58,869	42,717	57,118	16,225

FY 1994 Service	Beginning Enrollments	Graduates	Average Enrollments	Average Number of Scholarship Enrollees
Army	46,794	44,448	45,621	7,883
Navy	6,590	1,334	6,270	4,030
Air Force	10,886	1,600	10,115	3,183
Total	64,270	47,382	62,006	15,096

Off-Campus Commissioning Programs

The only Officer Acquisition Training program off the college campus is the Marine Corps Platoon Leaders Class (PLC). This program provides for enlistment as a Marine Corps Reservist while the student is still an undergraduate. All PLC training takes place in the summer. For freshmen and sophomores, PLC consists of two six-week training sessions at the Marine Corps Officer Candidate School in Quantico, Virginia. Juniors attend one ten-week session.

Students participating in this program attend either one or two summer training sessions, depending upon when during their college career they were enrolled. The objective of the program is to indoctrinate, motivate and train the enrollees by providing instruction in basic military subjects, leadership and physical conditioning. PLC students are commissioned when their college degrees are conferred. Newly commissioned Marine Corps officers then attend The Basic School at Quantico, Virginia.

The training loads in Table IV-6 are based only on the time spent in summer training.

TABLE IV-6. Training Input, Output, and Load, Off-Campus Commissioning Programs

Service Component	FY 91 Load	FY92 Load	FY 93			FY 94		
			Input	Output	Load	Input	Output	Load
Marine Corps Reserve	113	169	1,518	1,150	166	1,541	1,165	168

Officer Candidate Schools (OCS)

Each of the Military Services operates an Officer Candidate School. The Air Force school is entitled Officer Training School (OTS).

Enlisted members can use this route to "rise from the ranks." The existence of OCS and the other enlisted commissioning programs covered in the next section is a significant advancement incentive to ambitious and promising enlisted personnel.

The four Services offer direct entry into OCS to selected college graduates without previous enlisted service. Some college students in highly specialized academic disciplines, such as engineering and physical sciences, cannot afford the time required to participate in ROTC. The OCS program commissions well-qualified college students who desire to become officers after graduation. Because of reductions in officer end strength, Officer Candidate School workloads have decreased.

The following tables show length and load data for Officer Candidate Schools.

TABLE IV-7. Course Length in Weeks, Officer Candidate School

Army OCS	Navy OCS	Marine Corps OCS	Air Force OTS
9	16	10	15

TABLE IV-8. Training Input, Output and Load, Officer Candidate Schools

Service Component	FY 91 Load	FY 92 Load	FY 93			FY 94		
			Input	Output	Load	Input	Output	Load
Army								
Active	195	190	1,502	1,282	237	1,187	1,005	194
Reserve	5	7	93	78	16	90	78	16
Natl Guard	50	40	287	241	56	288	239	46
Navy								
Active	271	223	388	354	112	411	375	120
Reserve	0	0	0	0	0	0	0	0
Marine Corps								
Active	102	121	399	288	63	483	399	76
Reserve	0	0	0	0	0	0	0	0
Air Force								
Active	116	90	402	350	90	690	600	154
Reserve	15	10	57	50	12	57	50	12
Natl Guard	0	0	0	0	0	0	0	0
DoD								
Active	684	624	2,691	2,274	502	2,771	2,379	544
Res/Gd Tot	70	57	437	369	84	435	367	74
Total	754	681	3,128	2,643	586	3,206	2,746	618

Other Enlisted Commissioning Programs

The Services each have enlisted commissioning programs in addition to Officer Candidate Schools. The purposes of these programs are: (I) to provide a source of officers in specific skills with an expected high rate of retention; (2) to provide an avenue whereby enlisted personnel with proven qualifications can augment the commissioned ranks; and (3) to provide a measure of motivation to enlisted personnel. The Navy's Enlisted Commissioning Programs now number five. A similar program, the Marine Enlisted Commissioning Education Program, has been expanded to offer degrees in technical and liberal arts academic disciplines. Students in the USAF

Airman Education and Commissioning Program (AECP) major in engineering and computer science or physical science, with matriculation up to three years. The average academic time spent in the program is about 27 months. In the Navy, Marine Corps and Air Force, participants attend the Officer Candidate School of their Service before they are commissioned. Like OCS/OTS, these education programs carry an active duty service requirement. In FY 1988 the Army began reporting the warrant officer certification program in this category. While the other Services' participants are all on active duty, the Army's program also includes members of the Reserve and National Guard.

During FY 1986 the Navy instituted the Officer Sea and Air Mariner (OSAM) Program that provides officer accessions directly into the Naval Reserve. The program covers all phases of training from Officer Candidate School to specific training in a designated warfare specialty. Training is completed after approximately two years and individuals are released from active duty to complete a four-year drilling obligation with the Selected Reserve.

The following table displays load data for these programs. All participants are members of the active forces.

TABLE IV-9. Training Input, Output, and Load
Other Enlisted Commissioning Programs

Service	FY 91 Load	FY 92 Load	FY 93 Input	FY 93 Output	FY 93 Load	FY 94 Input	FY 94 Output	FY 94 Load
Army	197	127	1,113	1,080	224	1,237	1,194	187
Navy	1,655	1,582	1,126	1,004	1,585	1,075	996	1527
Marine Corps	291	296	105	80	267	105	80	267
Air Force	69	46	100	37	179	100	26	165
Total	2,212	2,051	2,444	2,201	2,255	2,517	2,296	2,146

Health Professions Acquisition Programs

This subcategory may be conveniently divided into two parts, the Armed Forces Health Professions Scholarship Program and the Uniformed Services University of the Health Sciences Program.

The Health Professions Scholarship Program was established in 1972 by Public Law 92-426. Participants are selected from among students or those accepted for enrollment in recognized health professions schools. Participants are commissioned in grade O-1 in the Reserve of their parent Service, but except for a short period of annual

active duty are not in active status. They are, therefore, not included in the training loads of their Services. Upon graduation, participants must serve obligated tours of duty, the length of which depends on the length of their participation in the program.

The program is authorized a total of 5,000 scholarships at its current level. Service data for FY 1993 and FY 1994 are shown in Table IV-10.

TABLE IV-10. Health Professions Acquisition Program, Scholarships Awarded, and Graduates.

FY 1993

Service	Scholarships	Graduates
Army	1,321	376
Navy	1,313	406
Air Force	1,418	384
DoD Total	4,052	1,166

FY 1994

Service	Scholarships	Graduates
Army	1,324	369
Navy	1,448	392
Air Force	1,375	394
DoD Total	4,147	1,155

An additional acquisition program for health professionals, the Uniformed Services University of the Health Sciences (USUHS), began operation in 1976. In accordance with PL 92-426, the student body of the USUHS is composed of commissioned officers of the Uniformed Services. The first students graduated from this program in 1980. The Air Force also fulfills some of their needs for new doctors through training at civilian institutions.

V

SPECIALIZED SKILL TRAINING

General Description

Specialized Skill Training provides officer and enlisted personnel with skills and knowledge needed to perform specific jobs. Each Service has established a job structure that makes it possible to carry out assigned missions. Each Service's mission is supported by an established job structure and each position within that job structure has been analyzed to determine the skill it requires. Specialized Skill Training provides these required skills to the proper number of individuals in a phased manner so that each vacancy in the structure can be filled promptly with a qualified replacement.

Specialized Skill Training, as used in this report, is defined as:

> Initial, progression and functional training for both officer and enlisted personnel. Specialized Skill Training includes such programs as Army Advanced Individual Training, Navy Apprenticeship Training and Marine Combat Training. This training category also includes aviation-related ground training and initial enlisted leadership training other than that carried in Professional Development Education.

Army One-Station Unit Training (OSUT) provides Army personnel with job-related training in a number of skills. However, since OSUT is conducted as one course that combines Recruit and Specialized Skill Training, it is treated separately in this report (see Chapter III). OSUT loads are not included in the Specialized Skill Training loads in this chapter.

Specialized Skill Training loads for Active personnel will decrease 636 or 1 percent between FY 1992 and FY 1993 and decrease 2300 or 3 percent between FY 1993 and FY 1994. Reserve Components training loads increased about 16 percent from FY 1992 to FY 1993 and decreased about 4 percent from FY 1993 to FY 1994. Reserve and Guard officers and enlisted personnel beyond the initial entry stage are also trained by the Active establishment. DoD wide, the requirement to improve the technical skills of career personnel to keep pace with new equipment acquisition and modifications to the existing inventory will continue into the foreseeable future, and this is reflected in the estimated Specialized Skill Training load.

Specialized Skill Training loads for FY 1988 through FY 1994 are as shown in Table V-1.

TABLE V-1. Specialized Skill Training Load

Service Component	FY 88	FY 89	FY 90	FY 91	FY 92	FY 93	FY 94
Army a/							
Active	38,554	40,641	40,438	32,103	31,697	32,232	31,370
Reserve	6,613	6,305	7,502	6,036	5,070	6,715	5,932
Natl Guard	7,435	6,976	9,189	6,309	5,485	6,289	5,709
Navy							
Active	43,158	41,023	39,283	36,763	31,721	30,223	26,732
Reserve	1,775	1,497	1,253	1,213	1,058	759	745
Marine Corps							
Active	8,580	8,470	10,456	9,046	8,138	8,741	9,831
Reserve	1,399	1,228	2,356	1,145	1,245	1,395	1,552
Air Force							
Active	17,858	13,294	15,521	10,833	11,144	10,868	11,831
Reserve	1,254	1,078	654	537	1,110	1,368	1,540
Natl Guard	2,031	1,660	1,475	1,470	2,152	2,227	2,518
DoD							
Active	108,150	103,428	105,698	88,745	82,700	82,064	79,764
Res/Gd Tot	20,507	18,744	22,429	16,710	16,120	18,753	17,996
Total	128,657	122,172	128,127	105,455	98,820	100,817	97,760

a/ Army One-Station Unit Training load is not included.

As in the other types of training covered in this report, the demand placed on the training establishment for individuals is determined by comparing projected requirements for each skill and skill level with the projected future inventory of trained service members.

When anticipated losses are deducted from the current inventory, shortages in various skill areas are revealed. These shortages, except for those that can be satisfied through on-the-job training, or, in a few cases, through lateral entry from civilian life of individuals who already possess needed job skills, create a demand for a phased output of trained replacement personnel. Also, estimates are made of the proportion of students in each training course who will fail to complete the course. These course attrition factors determine the inputs necessary to achieve the desired course outputs.

attrition factors determine the inputs necessary to achieve the desired course outputs. Inputs, outputs, attrition patterns, and course lengths determine the training loads. These factors are discussed for each sub-category of Specialized Skill Training in the remainder of this chapter.

One of the challenges facing the Reserve Components is matching an individual's occupational specialty to a specific billet. The majority of the specialties or ratings require formal school training prior to designation. Since limited availability for active duty prevents members of the Selected Reserve from attending many formal schools, initial skill training programs are being developed to train prior-service Reservists in selected occupational specialties using combinations of two-week formal schools, on-the-job training, correspondence courses, mobile training teams and civilian vocational technical courses.

Specialized Skill Training is the most diverse of the major categories of individual training. In the interest of clarity, the full category has been divided into five sub-categories. Two are concerned with initial skill training, one for officers, the other for enlisted personnel. Two others cover more advanced training, again divided by officer and enlisted. The last category covers both officer and enlisted training that conveys required knowledge or skills without changing the student's primary skill or skill level.

Initial Skill Training (Enlisted)

Initial Skill Training (Enlisted) includes all formal training normally given immediately after Recruit Training and leading toward the award of a military occupational specialty or rating at the lowest skill level. Successful completion of the training qualifies the enlisted member to take a position in the job structure of the Service and to progress to the journeyman level through job experience. Army One-Station Unit Training satisfies this same purpose but, because it combines the skill training with recruit training in a single course, it is treated separately in this report.

The great majority of Service recruits are drawn from the least skilled segment of the population. Most recruits are under age 2I and have little civilian job experience. In addition, some civilian specialties are not in demand in the military job structure, and many of the most important military skills have no civilian counterpart. Consequently, only a small number of people enter the Service with a skill that can be used with little or no additional training. Enlistees must be trained in a technical skill before they can become productive. Some skills can be acquired through experience and on-the-job training. The vast majority, however, are most effectively and efficiently learned through formal courses. In some situations, on board ship or in remote locations for example, the opportunity for on-the-job training is limited.

Load data for Initial Skill Training (Enlisted) are displayed in Table V-2. The classification of this training is determined by its purpose, rather than by whether entrants attend immediately after Recruit Training. Thus some prior-service students and cross-trainees from other skill areas are reflected in these data.

TABLE V-2. Training Input, Output, and Load
Initial Skill Training (Enlisted)

Service Component	FY 91 Load	FY 92 Load	FY 93			FY 94		
			Input	Output	Load	Input	Output	Load
Army								
Active	12,162	11,141	56,364	52,439	11,876	48,744	45,975	11,034
Reserve	3,883	3,393	23,766	22,500	4,349	19,767	18,731	3,758
Natl Guard	4,220	3,440	19,714	18,951	4,176	16,635	16,047	3,599
Navy								
Active	17,846	13,327	85,716	81,332	12,537	76,053	72,189	11,186
Reserve	921	678	3,096	2,944	373	2,900	2,756	372
Marine Corps								
Active	4,615	3,905	24,240	21,514	4,424	33,362	33,299	5,273
Reserve	693	797	5,208	4,851	757	6,518	6,497	969
Air Force								
Active	6,332	7,456	30,591	30,131	7,141	34,284	32,210	7,978
Reserve	425	792	4,066	4,094	976	4,070	4,098	980
Natl Guard	1,165	1,672	7,870	6,958	1,742	7,898	6,983	1,754
DoD								
Active	40,955	35,829	196,911	185,416	35,978	192,443	183,673	35,471
Res/Gd Tot	11,307	10,772	63,720	60,298	12,373	57,788	55,112	11,432
Total	52,262	46,601	260,631	245,714	48,351	250,231	238,785	46,903

New mission requirements and technological change have resulted in consolidating or splitting skill areas and extensive modification of existing training programs. For instance, the introduction of word processors and microcomputers into Air Force personnel, administration and resource management has increased the percentage of new accessions requiring formal training for these skills.

Reserve trainees graduating from Recruit Training proceed to Initial Skill Training in their occupational specialty. This may consist of a course in a Service school or Advanced Individual Training at an Army training center. If a course in the proper skill is not available, the trainee may be assigned to on-the-job training in an active duty for training status. The actual length of active duty training, in comparison with the statutory twelve weeks minimum, varies from twelve weeks to twelve months, depending on the occupational specialties involved. To accommodate the Reserve

Component member, the split-training program allows completion of initial entry training in two training segments in a two-year period.

The variety of skills required in the four Services dictates a large number of courses for enlisted personnel in Initial Skill Training, as shown in the following table.

**TABLE V-3. Number of Courses,
Inital Skill Training (Enlisted)**

	Army	Navy	Marine Corps	Air Force
FY 1993	407	208	228	275
FY 1994	292	196	225	275

Course lengths vary widely based on the complexity of the subject matter. For example, the Air Force course for cytotechnology specialists is 52 weeks long; but the course for packing specialist is only 3 weeks long. Table V-4 shows the average course lengths for the Services' Enlisted Initial Skill Training.

**TABLE V-4. Average Course Length,
Initial Skill Training (Enlisted)**
(Academic Days in Training)

	Army	Navy	Marine Corps	Air Force
FY 1993	53	42	64	103
FY 1994	55	45	61	113

Initial Skill courses include general skills, intelligence, cryptography and health service training. Some of these courses (for example, nuclear reactor specialist or electronics technician) are highly technical. Others involve less complex skills -- cook, clerk-typist, and vehicle driver. A sampling of high-volume courses is shown in the Table V-5.

TABLE V-5. Initial Skill Training Courses
with High Student Flow

FY 1994	Student Input	Course Length (Weeks)
Army a/		
Medical Specialist	9,782	10.0
Motor Transport Operator	4,401	9.0
Administrative Specialist	4,063	8.0
Petroleum Supply Specialist	2,936	9.0
Light Wheeled Vehicle	2,759	13.0
Food Service Specialist	2,700	9.0
Navy		
Apprentice Training	16,340	2.7
Hospital Corpsman, Basic	4,393	14.0
Avionics Technician Class A	2,221	27.7
Basic Enlisted Submarine	2,173	5.7
Mess Management Specialist	2,170	6.7
Nuclear Fld C1 A Sch Machinist Mate	2,132	11.7
Marine Corps		
Rifleman (W)	2,828	6.0
Field Radio Operator (FROC)	1,914	8.0
Motor Vehicle Operator	1,893	6.0
Rifleman (E)	1,667	3.0
Basic Electronics (BEC)	1,005	11.0
Administrative Clerk	928	9.0
Law Enforcement (Military Police)	909	9.0
Avionics Technician Class A1	888	28.0
Enlisted Supply Basic	881	7.0
Automotive Organizational Maint.	853	12.0
Air Force		
APR Security Specialist	2240	5.6
APR Info. Mgmt. Specialist	2085	4.6
APR Inventory Mgmt. Specialist	1299	6.8
Munitions System Specialist	1125	6.6
APR-Comm., Computer System Opr.	870	7.6
APR Law Enforcement Specialist	839	5.4
APR Personnel Specialist	628	5.8

a/ Army student input and course length is for Skill Progression
Training.

The final determinant of training loads is the anticipated rate of attrition. Attrition rates must be estimated for each course. A routine course may have low attrition, but attrition may run high in complex technical courses. Unlike Recruit Training, students

who fail Initial Skill Training are not discharged but retrained in other, less difficult skills. The average anticipated attrition rates are shown below.

TABLE V-6. Average Attrition Rates,
Initial Skill Training (Enlisted)

	Army	Navy	Marine Corps	Air Force
FY 1993	6.0%	4.0%	2.7%	5.8%
FY 1994	5.1%	4.0%	1.9%	5.4%

Skill Progression Training (Enlisted)

This sub-category covers skill training received by enlisted personnel after Initial Skill Training. Through this training the student gains the knowledge to perform at higher skill levels or in a supervisory position. Skill Progression Training is most frequently given after Service members have gained experience through actual work in their specialty. In some cases, however, training in a relatively narrow subject area as an immediate follow-on to Initial Skill Training is included in Skill Progression Training.

Training load data for Skill Progression Training (Enlisted) are shown on Table V-7.

TABLE V-7. Training Input, Output, and Load
Skill Progression Training (Enlisted)

Service Component	FY 91 Load	FY 92 Load	FY 93 Input	FY 93 Output	FY 93 Load	FY 94 Input	FY 94 Output	FY 94 Load
Army								
Active	8,317	9,334	61,467	56,144	8,606	58,535	54,082	8,255
Reserve	399	374	2,180	1,775	475	2,115	1,950	570
Natl Guard	444	496	3,984	3,705	664	3,573	3,377	623
Navy								
Active	12,627	12,163	98,400	95,060	12,147	83,375	80,519	10,252
Reserve	139	135	3,018	2,934	163	2,628	2,555	161
Marine Corps								
Active	1,357	1,028	9,785	8,946	1,415	9,591	9,570	1,327
Reserve	33	40	1,520	1,443	166	1,135	1,123	107
Air Force								
Active	3,640	1,950	26,604	27,492	1,952	26,711	27,597	1,962
Reserve	74	202	3,229	3,105	247	5,172	5,033	401
Natl Guard	213	342	4,564	4,550	345	7,787	7,740	600
DoD								
Active	25,941	24,475	196,256	187,642	24,120	178,212	171,768	21,796
Res/Gd Tot	1,302	1,589	18,495	17,512	2,060	22,410	21,778	2,462
Total	27,243	26,064	214,751	205,154	26,180	200,622	193,546	24,258

The requirement for Skill Progression Training arises from the fact that training in a skill at entry level and subsequent experience do not, in many cases, fully qualify service members to do the more advanced jobs in their field. Several factors may contribute, singly or in combination, to a need for additional formal training:

1. The introduction of new equipment.

2. The need to produce a higher degree of skill in a sub-specialty.

3. The need to impart a broader base of knowledge to qualify an individual for supervisory responsibility.

4. The requirement for refresher training to bring the Service member up to date on the latest information and techniques in a skill.

As in all other types of training, the primary need is to have trained individuals available to replace losses as they occur. Planning future training in this sub-category follows the same general pattern as for Initial Skill Training. Some additional complications,

however, are introduced by the fact that members eligible for schooling are frequently serving overseas or on board ship, rather than flowing from the Recruit Training pipeline. This situation frequently requires that personnel receive the training when they are available, preferably between duty assignments, rather than when they might more easily be accommodated for formal school training. Reserve Component personnel have similar difficulties because of civilian employer commitments.

The following table displays course data for Skill Progression Training for each of the Services.

TABLE V-8. Courses, Course Length, and Projected Attrition,
Skill Progression Training (Enlisted)

	Army	Navy	Marine Corps	Air Force
Number of Courses	464	2,287	537	459
Average Course Length (Academic Days)	37	41	40	34
Projected Attrition Rate	7.0%	3.0%	2.3%	3.9%

The Air Force's average days in training is low compared to the other Services because of the heavy use of short courses. The large number of Navy courses is a reflection of the many Navy occupational subspecialties.

Initial Skill Training (Officer)

As a general rule, Officer Acquisition Training is oriented toward the broad educational background and general military training that is considered necessary for all officers entering a Service. Most newly commissioned officers require further training for the specific type of duty they will be performing in their first duty assignment. Initial Skill Training for officers is, therefore, analogous to Initial Skill Training for enlisted personnel. Both provide the job-oriented training which, added to the military fundamentals learned earlier, prepares the individual for taking a place in the job structure.

Load data for Initial Skill Training (Officer) are displayed in Table V-9.

TABLE V-9. Training Input, Output, and Load
Initial Skill Training (Officer)

Service Component	FY 91 Load	FY 92 Load	FY 93 Input	FY 93 Output	FY 93 Load	FY 94 Input	FY 94 Output	FY 94 Load
Army								
Active	1,756	1,782	7,958	7,748	2,086	6,833	6,708	1,881
Reserve	1,286	785	5,187	5,043	1,180	4,317	4,247	953
Natl Guard	868	822	2,449	2,359	645	2,292	2,232	568
Navy								
Active	1,024	1,057	4,984	4,747	997	4,412	4,202	884
Reserve	21	52	842	799	48	746	707	42
Marine Corps								
Active	480	835	1,505	1,230	483	2,547	2,541	862
Reserve	19	11	127	127	16	99	99	12
Air Force								
Active	348	618	3,078	2,719	645	3,700	3,327	693
Reserve	9	33	423	403	56	499	476	62
Natl Guard	43	49	292	263	53	356	325	58
DoD								
Active	3,608	4,292	17,525	16,444	4,211	17,492	16,778	4,320
Res/Gd Tot	2,246	1,752	9,320	8,994	1,998	8,309	8,086	1,695
Total	5,854	6,044	26,845	25,438	6,209	25,801	24,864	6,015

With minor exceptions, all newly commissioned Army officers attend officer basic courses at their branch schools -- Infantry officers at the Infantry School, Engineer officers at the Engineer School, and so forth. These courses average 12 weeks in length and officers attend before reporting to their first unit of assignment. In addition, certain officers are selected to attend follow-on skill or functional training courses for more specialized assignments.

All submarine and nuclear officers and most Surface Navy officers go to Initial Skill Training. The Navy provides 21 courses for officers in Initial Skill Training, with an average course length of 103 days.

All newly commissioned Marine Corps officers attend a basic course for general orientation and training. In addition, most Marine Corps officers attend one of the 53 Initial Skill Training courses sponsored by the Corps. They may also participate in others conducted by the Navy or other Services. Such courses average 84 days in length and are related to specific officer jobs.

courses, some immediately after commissioning and others after spending some time at their first duty assignment.

Skill Progression Training (Officer)

Skill Progression Training for officers is, in general, aimed at officers with several years of practical experience and provides them knowledge needed to assume more advanced responsibilities. For example, the Army provides advanced courses that are structured to prepare the students for battalion and brigade staff duties in addition to command responsibilities at the company and battery level. Data for Skill Progression Training (Officer) are displayed in the following table.

TABLE V-10. Training Input, Output, and Load
Skill Progression Training (Officer)

Service Component	FY 91 Load	FY 92 Load	FY 93			FY 94		
			Input	Output	Load	Input	Output	Load
Army								
Active	3,149	3,113	10,588	9,438	3,027	12,405	12,203	3,628
Reserve	118	133	3,677	3,657	233	3,019	3,007	200
Natl Guard	411	429	2,670	2,632	415	2,702	2,670	426
Navy								
Active	1,338	1,249	10,444	10,108	1,261	8,914	8,632	1,053
Reserve	33	35	568	547	56	479	460	48
Marine Corps								
Active	185	59	1,316	1,232	182	1,774	1,772	343
Reserve	4	7	236	231	16	359	358	32
Air Force								
Active	328	1,005	17,721	17,956	999	19,125	19,362	1,071
Reserve	10	60	875	856	59	1,192	1,270	67
Natl Guard	24	60	1,272	1,266	61	1,701	1,690	80
DoD								
Active	5,000	5,426	40,069	38,734	5,469	42,218	41,969	6,095
Res/Gd Tot	600	724	9,298	9,189	840	9,452	9,455	853
Total	5,600	6,150	49,367	47,923	6,309	51,670	51,424	6,948

The Army conducts 190 courses averaging 59 days in length. The Navy maintains 149 courses averaging 46 days in length. The Navy courses cover a variety of specialized duties that are typically performed by officers with several years of service; for example, aviation maintenance officer course and nuclear propulsion plant course.

Both the Marine Corps and the Air Force conduct broad courses for officers at about the same level as the Army's advanced courses; however, as these are Service-wide and uniform in content, they are carried in Professional Development Education in this report. Within Skill Progression Training, Marine Corps officers attend 264 courses, averaging 25 days in length. They also utilize the course offerings of the other Services. The Air Force has 157 courses, averaging 17 academic days each, which train officers in new duties required by their prospective assignments.

Attrition from the Skill Progression courses for officers is significantly lower than for enlisted or initial skill officer training. Attrition of one to two percent is typical of such courses.

The Air National Guard (ANG) also conducts specialized skill progression training in several aviation disciplines at ANG installations. Air Force facilities cannot be used for this training because of constrained training time available for the reservist, geographic dispersion of units, availability of training equipment and location of training areas.

Functional Training (Officer and Enlisted)

Functional Training is an "all other" sub-category covering those types of required training that do not fit neatly into the definitions of the other sub-categories. On the whole, Functional Training is in subject areas that cut across the scope of military occupational specialties and provides additional required skills without changing the student's primary specialty or skill level. Both officers and enlisted personnel participate in Functional Training. Load data for Functional Training are shown in the Table V-11.

TABLE V-11. Training Input, Output, and Load
Functional Training (Officer and Enlisted)

Service Component	FY 91 Load	FY 92 Load	FY 93 Input	FY 93 Output	FY 93 Load	FY 94 Input	FY 94 Output	FY 94 Load
Army								
Active	6,719	6,327	86,631	80,144	6,637	74,436	67,558	6,572
Reserve	350	385	7,704	7,289	478	6,937	6,631	451
Natl Guard	366	298	6,111	5,737	389	6,569	6,259	493
Navy								
Active	3,928	3,925	321,992	316,822	3,281	328,410	323,133	3,357
Reserve	99	158	18,513	18,298	119	18,874	18,656	122
Marine Corps								
Active	2,409	2,311	34,417	30,717	2,237	32,483	30,086	2,026
Reserve	396	390	6,503	5,261	440	6,962	6,717	432
Air Force								
Active	185	115	5,436	5,400	131	5,161	5,127	127
Reserve	19	23	1,115	1,105	30	1,115	1,105	30
Natl Guard	25	29	1,008	1,000	26	1,008	1,000	26
DoD								
Active	13,241	12,678	448,476	433,083	12,286	440,490	425,904	12,082
Res/Gd Tot	1,255	1,283	40,954	38,690	1,482	41,465	40,368	1,554
Total	14,496	13,961	489,430	471,773	13,768	481,955	466,272	13,636

Army Functional Training includes the airborne, ranger, and special forces qualification courses, many specialized NCO supervision courses, language training, and a number of courses related to specialized equipment (e.g., Satellite Communication Operation and Maintenance).

Navy Functional Training differs from that of the other Services because of the very high input to a large number of very short courses. Most of the training is conducted while the ship is in port and includes the following types of activity:

1. Shore training for shipboard teams (firefighting, damage control, anti-submarine warfare, and so forth).

2. Short basic or refresher courses at fleet training centers in the operation of equipment or systems (TOMAHAWK operations and maintenance, SH-60B system familiarization, and 50 cal. machine gun operations).

3. Shipboard in-port training assistance (combat systems, advanced acoustic analysis and command excellence seminar mobile training teams).

4. Precommissioning training for newly formed crews of ships under construction (damage control, Combat Information Center team training and radar navigation team training).

Marine Corps functional training provides skills necessary to perform a specific mission outside of the normal primary occupational specialty. Examples of functional training courses taught at Marine institutions are range officer, aerial observer, field grade officer winter warfare planning, scout/sniper, mountain survival and drill instructor training. The Marine Corps has undertaken a new program called "Marine Battle Skills Training" that will provide the individual Marine with the basic skills required to function in a combat environment and effectively contribute to unit defense. Approximately 31,000 Marines will participate in this training in FY 1993 and in FY 1994.

Marines continue to serve in worldwide locations where terrorism remains a constant threat. To meet this challenge, the Marine Corps has established a program of terrorism counteraction training. Classes range from two hours at recruit training to 25 hours for officer students at the Marine Corps Command and Staff College. Similarly, attendance has increased at other service schools whose curricula include counter terrorism. For FY 1993 and FY 1994, approximately 1000 Marines are expected to attend specialized skill schools where these measures are taught.

Most Air Force Functional Training is survival training related to various environments: water, arctic, jungle, or tropic. These courses train air crews in the skills for long-term combat survival and survival in chemically, biologically, and radiologically contaminated environments.

The following table provides course data for Functional Training.

TABLE V-12. Courses and Course Length, Functional Training

	Army	Navy	Marine Corps	Air Force
FY 93 Number of Courses	1,376	1,534	90	8
Average Course Length (Training Days)	17	3	13	20
FY 94 Number of Courses	1,341	1,517	95	8
Average Course Length (Training Days)	18	3	14	20

VI

FLIGHT TRAINING

General Description

Flight Training programs provide basic flying skills required prior to operational assignment of pilots, navigators, and naval flight officers. Most of the training in this category is undergraduate flight training. At the conclusion of this training, a graduate is awarded "wings" and is classified as a "designated" or "rated" officer. Flight Training includes programs for pilots of all Services, navigators in the Air Force, and naval flight officers in the Navy and Marine Corps. Pilot training may be in jet or propeller-driven fixed-wing aircraft, or in helicopters. Some related advanced flight training, such as Army instructor pilot training, is also included in Flight Training. Enlisted programs in aviation related subjects (for example, in air traffic control) and Air Force survival training are in Specialized Skill Training. Marine Corps enlisted navigator training is included in Flight Training.

Beginning in FY 1986, the Navy opened flight training to a limited number of reservists to fill critical billets as Naval Flight Officers. The students enter the pipeline on extended active duty and are trained at the Aviation Officers Candidate School (AOCS) with their active duty counterparts. After completing all formal specific aircraft training, they are released from active duty to receive their proficiency training with a Naval Air Reserve squadron. The proficiency or operational training is not included in the training loads of this report.

Generally, Reserve Component participation in Flight Training is relatively minor, since most aviator requirements in Reserve units are filled by experienced aviators who join after extended service in the active components.

Flight Training loads, by Service and component, for Fiscal Years 1988 through 1994 are shown in Table VI-1.

TABLE VI-1. Total Flight Training Load

Service Component	FY 88	FY 89	FY 90	FY 91	FY 92	FY 93	FY 94
Army							
Active	865	1,135	1,203	1,008	860	790	793
Reserve	87	88	112	71	64	61	79
Natl Guard	231	280	255	327	246	187	318
Navy							
Active	2,023	2,249	2,255	1,542	1,461	1,131	1,134
Reserve	0	0	0	0	0	0	0
Marine Corps							
Active	534	513	572	504	545	540	474
Reserve	0	0	0	0	0	0	0
Air Force							
Active	2,773	2,495	2,395	1,678	1,312	842	902
Reserve	62	50	60	52	61	90	100
Natl Guard	205	192	197	186	204	189	237
DoD							
Active	6,195	6,392	6,425	4,732	4,178	3,303	3,303
Res/Gd Tot	585	610	624	636	575	527	734
Total	6,780	7,002	7,049	5,368	4,753	3,830	4,037

For purposes of clarity, the following discussion of aviation training is divided into three sections -- Undergraduate Pilot Training, Navigator Training and All Other Flight Training.

Undergraduate Pilot Training

Undergraduate Pilot Training qualifies students to perform the flight duties and to assume the responsibilities of military pilots. Air Force courses include sufficient flying training to allow the student to attain proficiency in the general class of aircraft flown in future assignments. Flying training is augmented by flight-related ground training and simulator training. The Army uses a large number of warrant officer pilots. Enlisted entrants undergo warrant officer candidate training before entering flight phases of training and receive their warrants upon graduation from flight training. Some Army flight training students are already commissioned officers or warrant officers upon entry. The Navy conducts officer training for naval aviation officer candidates concurrent with the early phases of flight training.

Training data for FY 1991 through FY 1994 are displayed in the following table.

TABLE VI-2. Training Input, Output, and Load
Undergraduate Pilot Training

Service Component	FY 91 Load	FY 92 Load	FY 93 Input	FY 93 Output	FY 93 Load	FY 94 Input	FY 94 Output	FY 94 Load
Army								
Active	760	642	1,811	1,775	587	2,209	2,203	549
Reserve	50	41	131	128	44	181	181	51
Natl Guard	283	170	255	249	91	711	711	187
Navy								
Active	1,073	999	704	583	793	723	564	798
Reserve	0	0	0	0	0	0	0	0
Marine Corps								
Active	456	500	481	379	500	466	365	438
Reserve	0	0	0	0	0	0	0	0
Air Force								
Active	1,173	1,161	806	950	690	1,131	1,017	699
Reserve	47	53	94	65	82	101	80	85
Natl Guard	148	167	192	109	151	191	159	178
DoD								
Active	3,462	3,302	3,802	3,687	2,570	4,529	4,149	2,484
Res/Gd Tot	528	431	672	551	368	1,184	1,131	501
Total	3,990	3,733	4,474	4,238	2,938	5,713	5,280	2,985

Load data for each Service for undergraduate helicopter pilot training are shown in Table VI-3.

TABLE VI-3. Training Input, Output, and Load
Undergraduate Helicopter Pilot Training

Service Component	FY 91 Load	FY 92 Load	FY 93 Input	FY 93 Output	FY 93 Load	FY 94 Input	FY 94 Output	FY 94 Load
Army								
Active	760	642	1,811	1,775	587	2,209	2,203	549
Reserve	50	41	131	128	44	181	181	51
Natl Guard	283	170	255	249	91	711	711	187
Navy								
Active	317	297	250	214	255	258	207	256
Reserve	0	0	0	0	0	0	0	0
Marine Corps								
Active	260	241	270	221	241	252	205	241
Reserve	0	0	0	0	0	0	0	0
Air Force								
Active	29	2	12	10	2	8	10	2
Reserve	0	0	0	0	0	0	0	0
Natl Guard	0	0	5	4	1	4	4	1
DoD								
Active	1,366	1,182	2,343	2,220	1,085	2,727	2,625	1,048
Res/Gd Tot	333	211	391	381	136	896	896	239
Total	1,699	1,393	2,734	2,601	1,221	3,623	3,521	1,287

The following table shows FY 1994 programmed course length and projected attrition rates for the Army undergraduate helicopter pilot training program.

TABLE VI-4. Course Length and Attrition Rates, Army Undergraduate Helicopter Pilot Training

	Commissioned Officer Candidates	Warrant Officer Candidates
Course Length (Weeks)	43.3/45.3 *	42/44 *
Attrition Rate	6%	5%

* UHPT consists of dual track training in either the UH-1H or the OH-58 A/C. The OH-58 A/C track is two weeks longer in duration.

The Army course is 6 weeks longer for warrant officer candidates than for commissioned officers since the course also serves as a warrant officer candidate school.

Navy Undergraduate Pilot Training begins with a common core of basic ground training and primary flight training and then diverges according to whether the student is to be qualified in jet aircraft, propeller aircraft or helicopters. The basic ground phase, or aviation pre-flight indoctrination, is six weeks in length for officer students and 14 weeks for aviation officer candidates. This phase also serves as an officer training period for the latter group.

The following table shows FY 1994 course length in weeks, attrition rates, and type of aircraft used for training for each phase of the syllabus.

TABLE VI-5. Course Phasing, Navy/Marine Corps
Undergraduate Pilot Training

Course/Phase	Course Length	Attrition Rate Navy	Attrition Rate USMC	Type Aircraft
Commissioned Officer Aviation Pre-Flight Indoctrination	6.0	3.0%	1.0%	N/A
Aviation Officer Candidates	14.0	9.0%	N/A	N/A
Primary Flight Training (Jet, Prop, Helo)	22.0	10.0%	10.0%	T-34C
Strike Training (Jet)				
Intermediate	22.8	5.0%	5.0%	T-2C
Advanced	24.6	7.0%	7.0%	TA-4J
Maritime Training (Prop)				
Intermediate	5.2	1.0%	1.0%	T-34C
Advanced	18.6	2.0%	2.0%	T-44A
E-2/C-2 Training				
Intermediate Jet (CQ)	9.4	1.0%	N/A	T-44A
Advanced Prop	23.8	12.0%	N/A	T-2C
Helicopter Training				
Intermediate	5.2	1.0%	1.0%	T-34C
Advanced	21.4	3.5%	3.5%	TH-57

Because of the task requirements which dictate variations in course content, the standard Undergraduate Pilot Training course is as short as 55 weeks for an officer student qualifying in helicopters or as long as 82 weeks for an aviation officer candidate qualifying in jets. Actual course duration may be longer because of unforeseen circumstances such as major aircraft groundings, fuel shortages or inclement weather.

The following table displays load data for Navy and Marine Corps Undergraduate Pilot Training. All participants are in the active force.

TABLE VI-6. Training Input, Output, and Load
Navy/Marine Corps Undergraduate Pilot Training

Service	FY 91 Load	FY 92 Load	FY 93 Input	FY 93 Output	FY 93 Load	FY 94 Input	FY 94 Output	FY 94 Load
Navy								
Strike	447	396	222	173	303	226	167	306
Maritime	309	306	232	196	235	239	190	236
Helo	317	297	250	214	255	258	207	256
Total	1,073	999	704	583	793	723	564	798
Marine Corps								
Jet	161	227	172	127	227	174	128	165
Prop	35	32	39	31	32	40	32	32
Helo	260	241	270	221	241	252	205	241
Total	456	500	481	379	500	466	365	438

The final program of Undergraduate Pilot Training is training of Air Force fixed-wing jet pilots. Air Force helicopter pilots are trained in the Army program. The majority of Air Force fixed-wing pilots are trained in the all-jet USAF Undergraduate Pilot Training program. The standard course length is 52 weeks. Forecast attrition for FY 1993/1994 is 20 percent, not including flight screening programs.

In addition, approximately 110 Air Force pilots will be trained annually in the EURO-NATO Joint Jet Pilot Training (ENJJPT) program. ENJJPT is a cooperative undergraduate pilot and pilot instructor training program that began operation on 1 October 1981 at Sheppard Air Force Base, Texas. The nations involved in the program are Belgium, Canada, Denmark, Germany, Greece, Italy, Netherlands, Norway, Portugal, Turkey, United Kingdom and the United States. ENJJPT is based on the principles of proportionate sharing of program costs and proportionate instructor pilot manning. Forecast attrition for the program is 12 percent and the course length is 55 weeks.

Load data for both standard Air Force pilot training and ENJJPT are shown in Table VI-7.

TABLE VI-7. Training Input, Output, and Load
Air Force Undergraduate Jet Pilot Training

Component	FY 91 Load	FY 92 Load	FY 93			FY 94		
			Input	Output	Load	Input	Output	Load
Active	1,144	1,159	794	940	688	1,123	1,007	697
Reserve	47	53	94	65	82	101	80	85
Natl Guard	148	167	187	105	150	187	155	177
Total	1,339	1,379	1,075	1,110	920	1,411	1,242	959

At the conclusion of Undergraduate Pilot Training, the new pilot is qualified in trainer aircraft but requires additional training in operational aircraft units and employment tactics.

Undergraduate Navigator Training

The Navy trains Navy and Marine Corps personnel to become Naval Flight Officers. The Air Force trains its personnel as navigators. The duties of Naval Flight Officers and Air Force navigators are not precisely the same because of mission differences, but at the under graduate level they are sufficiently similar that they are referred to collectively in this report as "navigators" (the Army does not train or use navigators).

The Undergraduate Naval Flight Officer (NFO) training program is a building block training program. The training commences with Aviation Pre-flight Indoctrination (6 weeks for officers) or Aviation Officer Candidate School (14 weeks for officer candidates) where the student learns the aeronautical and physiological aspects of flight. After completing this phase, the student enters the Basic phase. This 15-week course provides the student with the basic skills and knowledge needed to safely navigate, communicate, manage aircraft systems, and to learn two-plane formation maneuvers. Successful completion of Basic qualifies students for entrance into Interservice Undergraduate Navigation Training (22 weeks) conducted at Randolph AFB, Texas (described in a later paragraph), or the Navy Intermediate Phase. The Intermediate Phase (13 weeks) expands the knowledge gained in Basic and requires higher skill and performance standards. Practical flight skills are developed in the ID-23 Computerized Navigation/Communications Training Device; the 2B37 T-34C Simulator; the 2F101 T-2 Simulator; the T-2B aircraft for jet acclimatization and high speed navigation; the T-47A aircraft for jet instrument navigation; and the T-34C aircraft for formation visual navigation, instrument navigation, and advanced performance maneuvers. After successful attainment of the performance standards, the students proceed to one of the following advanced specialized Naval Flight Officer Training phases: Radar Intercept Officer (RIO) (19 weeks), Tactical Navigation (TN)

(15 weeks), Overwater Jet Navigation (OJN) (19 weeks), and Airborne Tactical Data Systems (ATDS) (15 weeks).

The advanced segment of Undergraduate Navigator Training for Naval Flight Officers destined for the multi-engine land base community is now managed by the Naval Air Training Unit (NAVAIRTU) at Randolph AFB. Navigator candidates receive 320 hours of academic instruction, 78 hours of simulator training, and 80 hours of flight instruction in the T-43 aircraft during 23 weeks of training. This training provides sufficient skills and knowledge so that further training for the newly rated navigator can be limited to flight training in operational aircraft and training in employment of applicable weapons systems.

The Air Force program consists of a 14-week basic course that includes 266 hours of academic instruction, 35 hours of flight simulator training, 22 hours of actual flight instruction in the T-43 aircraft, and 2.5 hours in the T-37 aircraft. After the core course, students will attend one of three follow-on courses: Fighter, Attack, and Reconnaissance (FAR); Tanker, Transport, and Bomber (TTB); or Electronic Warfare Officer Training (EWOT). The FAR course provides 250 academic hours, 64 simulator hours, 14 T-37 hours, and 24 T-43 hours. The TTB trainee receives 300 academic hours, 68 simulator hours, and 88 T-43 hours. EWOT provides 431 academic hours, 63 simulator hours, and 28 T-43 hours.

After graduation, navigators require additional training in operational aircraft and employment techniques. Training load data for Undergraduate Navigator Training are shown in the following table.

TABLE VI-8. Training Input, Output, and Load
Undergraduate Navigator Training

Service Component	FY 91 Load	FY 92 Load	FY 93			FY 94		
			Input	Output	Load	Input	Output	Load
Navy								
Active	447	427	337	278	296	344	269	294
Marine Corps								
Active	48	45	42	37	40	37	34	36
Air Force								
Active	234	72	18	86	16	0	0	0
Reserve	4	4	0	0	0	9	7	4
Natl Guard	22	24	46	81	20	99	72	42
DoD								
Active	729	544	397	401	352	381	303	330
Res/Gd Tot	26	28	46	81	20	108	79	46
Total	755	572	443	482	372	489	382	376

Other Flight Training

This category covers miscellaneous types of flight training, including flight familiarization and other flight programs which were not previously included in undergraduate pilot or navigator training. Load data are displayed in Table VI-9.

TABLE VI-9. Training Input, Output, and Load
Other Flight Training

Service Component	FY 91 Load	FY 92 Load	FY 93 Input	FY 93 Output	FY 93 Load	FY 94 Input	FY 94 Output	FY 94 Load
Army								
Active	248	218	1,283	1,277	203	1,580	1,574	244
Reserve	21	23	168	166	17	218	218	28
Natl Guard	44	76	645	644	96	789	789	131
Navy								
Active	22	35	1,533	1,533	42	1,533	1,533	42
Air Force								
Active	271	79	1,125	1,031	136	1,560	1,437	203
Reserve	1	4	12	12	8	87	87	11
Natl Guard	16	13	238	188	18	237	188	17
DoD								
Active	541	332	3,941	3,841	381	4,673	4,544	489
Res/Gd Tot	82	116	1,063	1,010	139	1,331	1,282	187
Total	623	448	5,004	4,851	520	6,004	5,826	676

The Army includes in this category courses for instructor pilots and specific pilot qualification courses in various aircraft. Most of the courses are short, in the range of two to seven weeks.

The Navy Other Flight Training workload is composed mainly of instructor ground school training courses. Prospective instructors are taught unique techniques employed in the training of flight students. These courses are the Flight Instructor Training Course (FITC) and the Academic Instructor Training School (AITS). Jet transition training for designated aviators not qualified in jet aircraft is also included in this category, as are indoctrination flights for U. S. Naval Academy and NROTC midshipmen.

The Air Force conducts a separate 22-day flight screening program for candidates for Undergraduate Pilot Training who have not had previous flight familiarization training. Similar training is provided to most Air Force Academy and some ROTC cadets.

The Air Force Other Flight Training workload is limited largely to instructor courses for pilots and navigators and some specialized courses conducted by the Air Training

Command in such fields as electronic warfare. Most Air Force postgraduate flight training is conducted under operational command auspices.

In each of the Services, graduates of undergraduate pilot and undergraduate navigator training receive supplementary training in the specific aircraft they will be flying on operational missions. Emphasis is placed on crew training and performance under conditions that would be encountered in combat. In the Army most of this training is provided as part of normal unit training by the operational unit to which the new pilot is assigned. In the other Services, this additional training is provided by Navy or Marine fleet readiness squadrons, Marine combat crew readiness training squadrons, and Air Force combat crew training squadrons. As an exception, centrally conducted Army advanced flight training loads are included within Other Flight Training loads. However, most such training is classified as "crew and unit training" by the Navy, Marine Corps and Air Force and is not included in the loads of this report.

Determination of Requirements for Rated Officers

Flight Training rates are developed by comparing projections of future requirements for rated officers with projections of the future status of inventories of both Reserve and Active duty rated officers. Consideration is given to the need to have sufficient active duty aviators on hand, in appropriate grades. Requirements for rated officers include both the numbers needed to man the force in peacetime and the additional increment needed to sustain the force when war breaks out. For analytical purposes, aviator requirements are divided into two parts: unit and individuals. Requirements for aviators for each of these categories are computed to meet both peacetime needs and wartime mobilization needs.

Unit requirements represent the number of rated officers needed to carry out operational, training and management activities for programmed units. Each such authorized position (that is, military space or billet) requires a rated officer as an incumbent in order to carry out the functions of the job, either because the job involves flying duties (i.e., "operational flying" positions as defined for purposes of the Aviation Career Incentive Act of 1974) or requires flying experience. Other positions that may be occupied by rated officers for career broadening or similar purposes, but that do not require rated officer incumbents for accomplishing the duties, are not included. Unit requirements have three subcomponents: force, training, and supervision.

- Force requirements are the positions required to man and operate the Services' aircraft. The number of force positions is a product of established crew ratios (the number of crews per aircraft), which take into account workload (flying hour) and readiness factors and the amount of mission flying and unit flight training that is necessary.

- Training positions include the flyers who are conducting formal flight training.

- The supervision component is made up of officer positions entailing actual supervision of flying and flight-related activities and the performance of staff jobs that require the expertise of a rated officer. These positions are continuously scrutinized by the services to assure that rated requirements are valid.

Individual requirements include the transients, students and other individuals needed to make it possible to provide for reasonable manning of positions in units.

Rated Officer Inventory Projections

Projecting rated officer inventories into the future must be based on historical experience, current judgment and an appraisal of how the officers will react to conditions in the future (for example: pay, morale, state of the civilian economy, civilian airline hiring plans and family satisfaction with service life). These estimates are projected for at least five years in the future. Comparisons of total force inventories of rated officers are then made against the computed total force requirements, and training rates for the entire five-year period are adjusted. This process is repeated each year so that adjustments can be made in training rates based on changes in requirements and/or updated inventory projections. This continuing process of adjustment is necessary to insure that the correct number of trained rated officers will be available in the future without large and expensive fluctuations in training rates.

Training Rate Adjustments

When a comparison of requirements and inventories discloses a shortage or overage of projected rated officers, training rates are adjusted upward or downward in order to bring the program back into balance. For example, if projected FY 1995 pilot requirements exceed projected inventories by 500, an increase in training rates (that is, output or production) of pilots of 100 per year starting in FY 1991 may be appropriate. Inputs into the training program would start in FY 1991 in order to obtain the first increase in desired output in FY 1992. This reevaluation process is repeated at least once each year, with adjustments made as necessary to avoid wide fluctuations in loads.

Determination of Training Loads

The process described above, through continuous updating of the comparison between projected rated officer requirements and inventories, leads to a requirement for phased output from the flight training establishment. The desired annual output, considering the anticipated attrition rates and the planned course lengths, as discussed in the preceding sections on the various types of flight training, establishes the size of the input necessary to achieve the target output. Training loads are then calculated using these factors to determine the average number of students to be on hand during the training year. For FY 1993 and FY 1994, the currently recommended loads are those displayed previously in this chapter.

PROFESSIONAL DEVELOPMENT EDUCATION

General Description

The purpose of Professional Development Education is to provide training and education to career military personnel to prepare them to perform increasingly complex responsibilities as they progress in their military careers. Where Specialized Skill Training is directed toward specific job skills, Professional Development Education is concerned with broader professional development goals in such subjects as leadership and management, military science, engineering and medicine. Professional Development Education is conducted at both military and civilian institutions. This category includes senior enlisted leadership training in recognition of the broad professional content of these courses, as opposed to the narrower skill-oriented training typical of most enlisted training programs. Most of the programs in this category are for professional development of the officers.

Education in the military is fundamental to the development of military officers, enabling them to become fully qualified to perform duties of high responsibility in both war and peace. In most non-military professions, growth in ability and knowledge is gained through experience. In the military, opportunities for full practice of the profession are limited to wartime, and even those officers with combat experience have not had the opportunity for thorough exercise of warfare decision skills at their current rank and responsibility. The military school system serves partially to fill this shortfall by educating military officers in the skills and knowledge needed to perform their duties in a variety of locales and situations, both in peacetime and wartime.

Training loads for FY 1988 through FY 1994 are as shown in Table VII-1. The total loads in the table show a considerable disparity among the Services in amounts of Professional Development Education. These disparities are more apparent than real, and are related mainly to somewhat different ways of categorizing Service education and training programs.

The first three subcategories of Professional Development Education are officer professional military development programs. These programs are at three levels: career, intermediate and senior. In addition to the regular courses for active force officers, most schools in this category present nonresident courses and short seminars. Large numbers of Reserve Component officers and other military students are provided instruction through correspondence courses.

TABLE VII-1. Professional Development Education Training Loads

Service Component	FY 88	FY 89	FY 90	FY 91	FY 92	FY 93	FY 94
Army							
Active	3,633	3,904	3,475	2,760	2,746	2,077	2,611
Reserve	56	116	75	58	65	57	47
Natl Guard	71	82	85	67	58	65	68
Navy							
Active	2,179	2,119	2,270	2,266	2,484	2,451	2,426
Reserve	119	120	31	13	26	21	21
Marine Corps							
Active	902	929	1,002	1,187	1,380	1,420	1,790
Reserve	41	36	48	48	35	64	70
Air Force							
Active	3,725	3,332	3,349	3,290	5,667	6,087	5,978
Reserve	42	37	46	43	89	99	100
Natl Guard	53	44	41	43	209	210	211
DoD							
Active	10,439	10,284	10,096	9,503	12,277	12,035	12,805
Res/Gd Tot	382	435	326	272	482	516	517
Total	10,821	10,719	10,422	9,775	12,759	12,551	13,322

Professional Military Education (PME) is the systematic and comprehensive process of developing the skills, knowledge, and military judgment required to deal with the increasingly complex responsibilities associated with the duties and responsibilities of higher grades. In contrast to specific job or billet-related skills, PME is the life-long study of the profession of arms within the framework of military operations. PME is acquired through structured self-study, professional reading, symposia, formal schools attendance and experiences gained in duty assignments. The purpose of PME is to assist all Service members in fulfilling their personal goals and responsibilities for achieving operational competence.

Career Officer Professional Schools

The Marine Corps and Air Force conduct career officer professional courses for officers with some experience in operational units. These courses are Service-wide in scope and are, therefore, carried in this report under Professional Development Education. The Army and Navy conduct courses that are at a similar level, but are oriented toward specific skills (e.g., the Navy's Surface Warfare Officer's Course) or somewhat broader skills within a specific part of the Service (e.g., the Army's Armor Officer Advanced Course). The Army and Navy courses, because of their specialization, are treated in this report as part of Specialized Skill Training.

The Marine Corps Amphibious Warfare School prepares captains for duties in battalion or squadron command or on regimental level staffs. The course length is 39 weeks. The Air Force Squadron Officer School is an 8-week course designed to prepare selected captains who have completed some active duty service for command and staff responsibilities.

The training load data associated with these Marine and Air Force courses are displayed in the Table VII-2.

TABLE VII-2. Training Input, Output, and Load
Career Officer Professional Schools

Service	FY 91	FY 92	FY 93			FY 94		
Component	Load	Load	Input	Output	Load	Input	Output	Load
Marine Corps								
Active	210	215	311	310	202	325	325	207
Reserve	8	18	212	212	11	213	213	11
Air Force								
Active	377	330	3,000	3,000	387	2,398	2,398	307
Reserve	4	3	30	30	4	30	30	4
Natl Guard	2	3	25	25	3	30	30	4
DoD								
Active	587	545	3,311	3,310	589	2,723	2,723	514
Res/Gd Tot	14	24	267	267	18	273	273	19
Total	601	569	3,578	3,577	607	2,996	2,996	533

Intermediate Service Schools

Each of the Services maintains a Command and Staff College. In addition, the Navy is executive agent for the Armed Forces Staff College, a joint institution for students from all Services sponsored by the Joint Chiefs of Staff. While there are differences in approach and curriculum based on the requirements of the parent Service, each of the courses is designed to prepare officers for command and staff duties in all echelons of their parent Services and in joint or allied commands. A relatively small number of officers from each Service attends one of the Command and Staff Colleges of the other Services and a few attend Allied schools at the same level. Attendance at the Intermediate Service Schools is on a selective basis. The following table lists the Command and Staff Colleges and their respective course length in weeks.

TABLE VII-3. Intermediate Service Schools

Schools	Location	Course Length
Armed Forces Staff College	Norfolk, VA	12
Army Command and General Staff College	Fort Leavenworth, KA	42
College of Naval Command and Staff	Newport, RI	44
Marine Corps Command and Staff College	Quantico, VA	43
Air Command and Staff College	Montgomery, AL	43

Another school categorized as an Intermediate Service School for purposes of this report is the Defense Systems Management College at Fort Belvoir, Virginia. This is a joint school that conducts a primary 20-week course in program management concepts and methods with the major purpose of preparing selected military officers and DoD civilian personnel for assignments in program or project management.

Load data for military personnel attending Intermediate Service Schools is shown in the following table.

TABLE VII-4. Training Input, Output, and Load
Intermediate Service Schools

Service Component	FY 91 Load	FY 92 Load	FY 93 Input	FY 93 Output	FY 93 Load	FY 94 Input	FY 94 Output	FY 94 Load
Army								
Active	35	110	122	36	69	108	108	96
Reserve	2	3	7	5	0	1	1	1
Natl Guard	3	2	2	0	0	3	3	3
Navy								
Active	141	165	1,398	1,379	169	1,398	1,379	169
Reserve	2	8	60	60	8	60	60	8
Marine Corps								
Active	142	160	249	249	153	254	254	158
Reserve	11	11	255	255	13	255	255	13
Air Force								
Active	315	316	420	420	350	440	440	367
Reserve	12	12	92	92	11	92	92	11
Natl Guard	11	11	63	63	11	63	63	11
DoD								
Active	633	751	2,189	2,084	741	2,200	2,181	790
Res/Gd Tot	41	47	479	475	43	474	474	47
Total	674	798	2,668	2,559	784	2,674	2,655	837

Senior Service Colleges

Each of the services maintains a Senior Service School or "War College." In addition, there is the National Defense University, consisting of two joint Senior Service Schools, The National War College and the Industrial College of the Armed Forces. Students from all four Services attend these colleges. Senior Service College attendance is highly selective and students are chosen by Service selection boards from among the most promising officers in the lieutenant colonel/colonel, commander/captain grades.

The common purpose of these Senior Service Colleges is to prepare students for senior command and staff positions at the highest levels in the national security establishment and the allied command structure. The unifying focus is

the study of national goals and national security policy. Each of the Service colleges, while concentrating on the employment of the parent Service in the defense mission, also includes the study of the employment of the forces of other Services.

All of the colleges integrate the study of the economic, scientific, political, sociological and other factors into the consideration of national security problems. The Industrial College of the Armed Forces, in its approach to national security problems, emphasizes the use and management of national resources. The length of the principal courses at the Senior Service College is 10 months. Most colleges also conduct shorter special-purpose seminar-type courses, some particularly designed for Reserve Component officers. Use of these short courses is greatest in the Navy.

Load data for the Senior Service Colleges are shown in the following table.

TABLE VII-5. Training Input, Output, and Load
Senior Service Colleges

Service Component	FY 91 Load	FY 92 Load	FY 93 Input	FY 93 Output	FY 93 Load	FY 94 Input	FY 94 Output	FY 94 Load
Army								
Active	279	318	1,090	1,039	310	963	961	325
Reserve	24	28	436	435	35	205	205	18
Natl Guard	18	20	328	326	26	171	171	17
Navy								
Active	114	122	521	521	131	525	525	134
Reserve	7	6	47	47	6	47	47	6
Marine Corps								
Active	21	13	70	70	53	90	90	66
Reserve	5	0	46	46	3	131	131	6
Air Force								
Active	129	131	153	153	129	159	159	134
Reserve	4	5	25	25	4	26	26	5
Natl Guard	5	3	25	25	4	25	25	4
DoD								
Active	543	584	1,834	1,783	623	1,737	1,735	659
Res/Gd Tot	63	62	907	904	78	605	605	56
Total	606	646	2,741	2,687	701	2,342	2,340	715

Enlisted Leadership Training

The courses included in this category are designed to provide selected senior enlisted personnel the skills and knowledge needed to assume the responsibilities of the highest noncommissioned officer grades. These courses are the culmination of formal enlisted training and are, for enlisted personnel, analogous to the officer courses discussed in the preceding sections. In addition to such subjects as methods of leadership, human relations, discipline and training, and the administration and employment of military organizations, these higher level schools provide senior non-commissioned officers a broader perspective of the role and functions of their Services. Schools, locations and course length in weeks are shown in Table VII-6.

TABLE VII-6. Enlisted Leadership Training Courses

Schools	Location	Course Length
Army: Sergeants Major Academy	Fort Bliss, TX	22
Navy: Senior Enlisted Academy	Newport, RI	9
Marine Corps:		
Sr Level (SgtMaj/Staff MGySgt Sr Course)	Quantico, VA	1
Staff NCO Academy (Career Course)	Quantico, VA	6
	Camp Lejeune, NC	6
	Kaneohe Bay, HI	6
	Okinawa, JA	6
	Twentynine Palms, CA	6
(Advanced Course)	El Toro, CA	6
	Quantico, VA	10
Air Force:		
AF Senior NCO Academy	Gunter AFB, AL	7
NCO Academies	17 Worldwide	5
Airman Leadership Schools	96 Worldwide	4

Other enlisted leadership training for more junior noncommissioned officers is carried in Specialized Skill Training. This includes command sponsored NCO academies, for example. This training tends to be more skill related for specific types of specialized leadership responsibilities. The senior enlisted leadership training carried in this chapter is more properly thought of as Professional

Development Education in a broader sense. All four Military Services now sponsor Senior Enlisted Leadership Academies. In addition the Air National Guard conducts Professional Military Education courses at McGhee-Tyson Air Base, Knoxville, TN. These courses include Leadership School, NCO Academy, Academy of Military Science and Professional Continuing Education. Army National Guard NCOs are trained in the Reserve Component Noncommissioned Officers Education System (RCNCOES), attending courses at the appropriate level of training at State Military Academies or National Guard Bureau Regional NCO Schools.

Training loads for enlisted leadership training are shown in Table VII-7.

TABLE VII-7. Training Input, Output, and Load
Enlisted Leadership Training

Service Component	FY 91 Load	FY 92 Load	FY 93 Input	FY 93 Output	FY 93 Load	FY 94 Input	FY 94 Output	FY 94 Load
Army								
Active	332	308	1,010	975	317	1,048	1,012	333
Reserve	32	23	153	151	22	225	223	28
Natl Guard	46	36	271	266	39	230	226	48
Navy								
Active	42	45	250	245	43	250	245	43
Reserve	2	3	15	15	3	15	15	3
Marine Corps								
Active	301	715	5,861	5,718	725	8,608	8,608	1,059
Reserve	24	6	455	455	37	466	461	40
Air Force								
Active	211	2,634	29,203	29,003	2,880	28,343	28,143	2,776
Reserve	5	41	345	340	42	345	340	42
Natl Guard	11	169	1,394	1,374	167	1,394	1,374	167
DoD								
Active	886	3,702	36,324	35,941	3,965	38,249	38,008	4,211
Res/Gd Tot	120	278	2,633	2,601	310	2,675	2,639	328
Total	1,006	3,980	38,957	38,542	4,275	40,924	40,647	4,539

Graduate Education Fully Funded, Full Time

The Department of Defense needs military officers with specialized advanced knowledge which, in some cases, is attainable only through graduate education. Under the program established by Section 2004 of Title 10 United States Code and describe in this section, military officers pursue graduate education on a fully funded, full-time basis. A minimum service payback obligation of three years for the first year of schooling and one year for each year after the first is required of all officers entering the program. Services established maximum pay back period.

The following table displays training loads data for these graduate education programs. All participants are members of the Active Forces.

TABLE VII-8. Training Input, Output, and Load
Graduate Education, Fully Funded, Full Time

Service	FY 91 Load	FY 92 Load	FY 93 Input	FY 93 Output	FY 93 Load	FY 94 Input	FY 94 Output	FY 94 Load
Army	924	809	430	98	479	572	435	843
Navy	1,492	1,436	742	739	1,402	742	739	1,383
Marine Corps	148	144	84	73	151	94	94	162
Air Force	1,084	1,142	747	668	1,135	749	722	1,180
Total	3,648	3,531	2,003	1,578	3,167	2,157	1,990	3,568

Officer graduate students attend either a civilian educational institution or one of the two Service institutions, the Naval Postgraduate School or the Air Force Institute of Technology, depending upon where the required education can best be obtained. Curricula in the two Service institutions emphasize military unique courses, such as in logistics management or intelligence operations, and military applications in all other courses. While these schools are primarily used by the parent Services (including Marine Corps use of the Naval Postgraduate School), they also educate some students from other Services. The following table displays student loads for these two schools.

TABLE VII-9. Graduate Education Load at Service Institutions

	Actuals		Estimates	
	FY 1991	FY 1992	FY 1993	FY 1994
Naval Postgraduate School				
Army	150	180	180	180
Navy	1,266	1,218	1,178	1,159
Marine Corps	125	108	119	131
Air Force	65	70	32	21
Total	1,606	1,576	1,509	1,491
Air Force Institute of Technology				
Army	35	24	24	24
Navy	1	2	3	3
Marine Corps	1	1	2	3
Air Force	1,084	1,142	1,135	1,180
Total	1,121	1,169	1,164	1,210

Requirements for graduate-degreed officers depend upon the number of "validated billets," that is, military positions that have been determined to require an incumbent with graduate level education in the applicable academic discipline. The Services examine the duty prerequisites for each billet nominated for validation and determine if the job does, in fact, require an officer with an advanced degree. Requirements for graduate legal education are determined separately.

Other Full Time Education Programs

In addition to the Professional Development Education programs already described there are a variety of other full-time programs tailored to meet the particular needs of the Services. (Health Professions Education programs are briefly discussed in a separate section at the end of this chapter).

Several programs have been designed to permit selected individuals an opportunity to work toward associate, baccalaureate or advanced degrees. These programs benefit the Services in several important ways: they increase the technical qualifications of the individuals in the program; they improve the general educational levels of Service personnel; and they provide career retention and recruiting incentives to outstanding personnel. In addition, to the extent possible, personnel in advanced education programs are later used to

satisfy validated requirements and hence reduce the required student load in graduate education for validated billets.

The degree completion programs are managed by the individual Military Departments and each has its own selection criteria. Generally, individuals are not selected for a program unless the education will enhance their professional development and be of use to the Military Department. All of the programs require an active service payback from the individual.

Short course education provides the Military Services with needed skills in a wide variety of scientific, administrative and other fields. These programs are selected to train personnel in job-oriented skills that can best be acquired through abbreviated courses. Accounting, traffic management and aviation safety are examples of skills involved. Some of this training is conducted in DoD schools, some at civilian institutions.

TABLE VII-10. Training Input, Output, and Load
Other Full Time Education Programs

Service Component	FY 91 Load	FY 92 Load	FY 93			FY 94		
			Input	Output	Load	Input	Output	Load
Army								
Active	304	265	1,049	1,004	296	121	121	144
Navy								
Active	149	325	3,751	3,753	358	3,757	3,757	360
Reserve	2	9	128	128	4	128	128	4
Marine Corps								
Active	365	133	100	90	136	92	86	138
Air Force								
Active	493	477	11,267	11,277	604	11,373	11,380	606
Reserve	18	28	959	959	38	959	959	38
Natl Guard	14	23	638	638	25	638	638	25
DoD								
Active	1,311	1,200	16,167	16,124	1,394	15,343	15,344	1,248
Res/Gd Tot	34	60	1,725	1,725	67	1,725	1,725	67
Total	1,345	1,260	17,892	17,849	1,461	17,068	17,069	1,315

Health Professions Education

This subcategory is made up of a wide variety of courses for personnel of all health professions; physicians, dentists, dentists, nurses, medical administrators, and so forth. The majority of the courses offered are conducted in military facilities and vary in length from a few days to a full year. Some training is conducted at civilian medical institutions and, in the case of the Army, includes some advanced degree programs. The purpose of Health Professions Education is to expand the skills of military medical personnel and to provide them timely information on the latest techniques in their fields. In this category, the Army and Navy provide long-term training. The Air Force relies on short courses. Educational programs connected with the acquisition of health professionals is carried in this report under Officer Acquisition Training. The following table shows load data for Health Professions Education Programs.

TABLE VII-11. Training Input, Output, and Load
Health Professions Education

Service	FY 91 Load	FY 92 Load	FY 93			FY 94		
			Input	Output	Load	Input	Output	Load
Army	886	947	645	385	606	840	594	870
Navy	328	391	294	324	348	323	287	337
Air Force	681	637	2,201	2,195	602	2,201	2,201	608
Total	1,895	1,975	3,140	2,904	1,556	3,364	3,082	1,815

VIII

TRAINING MANPOWER

General Description

Manpower associated with the individual training mission in the Department of Defense can be divided into two parts: first, the trainees and students being trained, and second, the military and civilian manpower that conducts and supports the training. These two classes of manpower are discussed and explained in this chapter.

Trainees and Students

Manpower undergoing training in the Defense training establishment is defined and quantified in three different ways, each of which serves a somewhat different purpose with regard to manpower accounting and resource allocation.

1. Training Loads. These are the "military training student loads" and are detailed in Chapters III through VII of this report. They represent the average number of military trainees, students and cadets of each Service and component in training during a given fiscal year and are subject to annual congressional authorization. Training loads include all military manpower of a given Service or component who are undergoing individual training in a centralized school or training center, regardless of whether the training is conducted by the parent Service, one of the other Services, a DoD school, or by an agency or institution outside the Department of Defense, such as a civilian college or university. Training loads also include all military personnel in training regardless of their assignment status. Some trainees and students are assigned in a Permanent Change of Station (PCS) status to the training activity. Others are attending training in a temporary duty (TDY) or temporary additional duty (TAD) status while remaining assigned to their parent units. Still others are attending while in transit from one permanent assignment to another.

Since training loads are an annual average and most courses are much shorter than a year in length, the actual number of students and trainees who enter training, and the number who graduate, is considerably greater than the training load. For example, the total programmed training load for Recruit Training in FY l994 is 32,139, yet about 201,000 persons will enter Recruit Training and about 186,000 will graduate.

2. Training Workloads. The total number of trainees and students undergoing training within DoD includes some trainees and students of foreign nations, DoD civilian employees, and members of other departments and agencies of the U.S. Government, notably the Coast Guard. In addition, many U.S. military students and trainees are trained by a Service other than their own. Consequently, the average number of students being trained by a given Service, or its training workload, usually differs from

its training load. For example, the Marine Corps has a programmed Flight Training load of 474 in FY 1994. However, since the training is conducted by other Services, its Flight Training workload is zero. On the other hand, because the Navy trains many personnel from other Services and Coast Guard, foreign students as well as most of its own students, the Navy's Specialized Skill Training workload is higher than its training load.

Training workload, in conjunction with other applicable considerations, is the major determinant of the resources (manpower, funds, material and facilities) required to conduct training. It, rather than training load, is appropriately used in considering the allocation of resources to a Service or a training activity. Table VIII-1 displays the programmed training workloads for each of the Services in FY 1993 and 1994.

TABLE VIII-1. Training Workloads
(Thousands)

FY 1993

Category	Army	Navy	Marine Corps	Air Force	DoD
Recruit	13.6	9.5	9.2	4.2	36.5
Officer Acquisition	5.2	4.8	0.8	4.5	15.3
Specialized Skill	51.0	32.4	6.3	16.1	105.8
Flight	1.2	1.9	0.0	1.5	4.6
Prof. Dev. Educ.	1.2	3.0	1.3	5.6	11.1
OSUT	9.1	0.0	0.0	0.0	9.1
Total	81.3	51.6	17.6	31.9	182.4

FY 1994

Category	Army	Navy	Marine Corps	Air Force	DoD
Recruit	11.4	8.4	8.3	4.0	32.1
Officer Acquisition	5.1	4.7	0.8	4.5	15.1
Specialized Skill	49.0	28.6	8.5	17.5	103.6
Flight	1.4	1.8	0.0	1.7	4.9
Prof. Dev. Educ.	1.1	2.9	1.6	5.5	11.1
OSUT	9.3	0.0	0.0	0.0	9.3
Total	77.3	46.4	19.2	33.2	176.1

3. Students, Trainees, and Cadets. In the Individuals accounts of the Defense Manpower Requirements Report, military manpower is included for each Service as "Trainees and Students" and (except for the Marine Corps) "Cadets". Conceptually, this manpower represents the number of military trainees, students, cadets and

midshipmen programmed to be assigned (PCS as opposed to TDY/TAD) for training on the last day of a given fiscal year. Student, trainee and cadet manpower is similar to training load in that both represent military members of the reporting Service in training status. Nevertheless, there are substantial differences in the way the amount of manpower in these two manpower aggregations is calculated, with the result that the totals are seldom the same. The major reasons for these differences are:

- Training loads are man-years in training status, whereas trainees, students, and cadets are end strengths, or numbers in training on the last day of the fiscal year. Trainee, student, and cadet numbers are thus affected by the seasonality of enlistment patterns, as described in Chapter III, while the element of seasonality is leveled out in training loads.

- Training loads include students attending training in a temporary duty (TDY or TAD) status as well as those attending en route training in a PCS status. In the Defense Manpower Requirements Report, TDY and TAD students are carried in the categories of their parent units.

Training loads are a more accurate measure of the amount of training that is needed to meet military requirements than are the categorizations trainees, students and cadets.

Manpower in Support of Training

Military and civilian manpower is required to accomplish the individual training mission. This manpower performs all the other tasks necessary to conduct and support individual training conducted in training institutions; i.e., it conducts and supports instruction, operates training bases and facilities, maintains training equipment, produces training aids, provides personal and community services to students, trainees, and other military members, plans and manages training.

ROTC students are not military members in an active duty status and are not included in military manpower training loads. However, ROTC Basic Camp loads are included in the Army Recruit training loads because recruit training instructors and staff support and conduct that training. To be consistent with this treatment of ROTC students, manpower supporting the primary ROTC programs at colleges and universities is not included in Tables VIII-2 through VIII-5.

The following tables summarize manpower in support of training in three general functions: Conduct of Individual Training, Training Base Operating Support, and Management Headquarters. Conduct of Individual Training includes the following types of manpower: instructors, instructional support, school/training center staffs, student supervisors and direct training support such as training aids and literature, audiovisual resources and instructional systems development.

TABLE VIII-2. DoD Manpower in Support of Training, Conduct of Individual Training
(End Strength, Thousands)

	FY 1990		FY 1991		FY 1992		FY 1993		FY 1994	
	Mil.	Civ.	Mil.	Civ.	Mil.	Civ.	Mil.	Civ.	Mil.	Civ.
Army	34.8	10.9	36.8	10.4	32.4	9.4	30.6	9.7	27.7	8.8
Navy	27.2	3.3	26.2	3.3	26.9	3.2	24.6	3.2	13.2	3.1
Marine Corps	9.9	0.3	9.5	0.3	10.3	0.3	8.9	0.3	8.8	0.3
Air Force	15.1	5.4	13.7	4.3	13.2	4.4	10.7	4.6	11.8	4.6
Total	87.0	19.9	86.2	18.3	82.8	17.3	74.8	17.8	61.5	16.8

TABLE VIII-3. DoD Manpower in Support of Training, Base Operating Support
(End Strength, Thousands)

	FY 1990		FY 1991		FY 1992		FY 1993		FY 1994	
	Mil.	Civ.	Mil.	Civ.	Mil.	Civ.	Mil.	Civ.	Mil.	Civ.
Army	9.6	17.9	10.2	17.7	10.2	16.6	8.8	16.3	7.4	14.1
Navy	8.1	6.8	7.9	6.7	7.6	5.8	7.7	5.9	13.0	5.6
Marine Corps	2.9	1.7	2.8	1.5	3.0	1.6	2.8	1.6	2.8	1.6
Air Force	9.1	6.2	9.6	7.1	9.0	6.3	7.3	5.6	6.6	5.3
Total	29.7	32.6	30.5	33.0	29.8	30.3	26.6	29.4	29.8	26.6

TABLE VIII-4. DoD Manpower in Support of Training, Management Headquarters
(End Strength, Thousands)

	FY 1990		FY 1991		FY 1992		FY 1993		FY 1994	
	Mil.	Civ.	Mil.	Civ.	Mil.	Civ.	Mil.	Civ.	Mil.	Civ.
Army	0.5	0.7	0.5	0.7	0.4	0.7	0.4	0.8	0.4	0.7
Navy	0.3	0.3	0.3	0.3	0.2	0.5	0.2	0.5	0.2	0.5
Marine Corps	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Air Force	0.7	0.4	0.6	0.4	0.7	0.5	0.6	0.4	0.6	0.4
Total	1.5	1.4	1.4	1.4	1.3	1.7	1.2	1.7	1.2	1.6

TABLE VIII-5. DoD Manpower in Support of Training, All Functions
(End Strength, Thousands)

	FY 1990		FY 1991		FY 1992		FY 1993		FY 1994	
	Mil.	Civ.	Mil.	Civ.	Mil.	Civ.	Mil.	Civ.	Mil.	Civ.
Army	44.9	29.4	47.4	28.7	43.1	26.7	39.8	26.8	35.5	23.6
Navy	35.5	10.4	34.3	10.3	34.8	9.4	32.5	9.6	26.4	9.2
Marine Corps	12.8	1.9	12.4	1.8	13.3	1.9	11.7	1.9	11.6	1.9
Air Force	24.9	12.1	24.0	11.8	22.9	11.2	18.6	10.6	19.0	10.3
Total	118.1	53.8	118.1	52.6	114.1	49.2	102.6	48.9	92.5	45.0

The Services' estimates of training attributable manpower include some staff and support manpower that do not contribute to the production of student output and loads. This manpower is reported as training resources in the Future Years Defense Program (FYDP) because they belong to organizations and units with a primary mission of training. The majority of the non-training attributable manpower is that portion of Base Operating Support (BOS) needed to support non-training tenant activities at training installations.

Table VIII-6 shows changes in total military and civilian manpower in support of training between FY 1980 and FY 1994.

TABLE VIII-6. Manpower in Support of Training
DoD Total, by General Function
(End Strength, Thousands)

	FY 1980			FY 1993			FY 1994			Percent Change Total Manpower	
	Mil.	Civ.	Total	Mil.	Civ.	Total	Mil.	Civ.	Total	FY 80-93	FY 93-94
Conduct of Individual Training	89	21	110	75	18	93	62	17	78	-15.8%	-15.4%
Operating Support	34	39	73	27	29	56	30	27	56	-23.3%	0.7%
Training Headquarters	2	2	4	1	2	3	1	2	3	-27.5%	- 3.4%
Total	125	62	187	103	49	152	93	45	138	-19.0%	- 9.2%

As Table VIII-6 shows, the total military and civilian manpower in support of training has decreased 19 percent between FY 1980 and FY 1993 and 9.2 percent from FY 1993 to FY 1994. The decrease occurred in all areas supporting training.

As shown in Tables VIII-7 and VIII-8, training workloads will be 24 percent lower in FY 1993 than in FY 1980 and 3.5 percent lower in FY 1993 than in FY 1994.

TABLE VIII-7. Training Workload Trends
(Thousands)

	FY 80	FY 93	FY 94	Percent Change FY 80-93	FY 93-94
Army	105.0	81.3	77.3	- 22.6%	- 4.9%
Navy	70.0	51.6	46.4	- 26.3%	- 10.1%
Marine Corps	18.0	17.6	19.2	- 2.2%	9.1%
Air Force	47.0	31.9	33.2	- 32.1%	4.1%
Total	240.0	182.4	176.1	- 24.0%	- 3.5%

TABLE VIII-8. Training Manpower and Training Workload Trends
(Thousands)

	FY 80	FY 93	FY 94	Percent Change FY 80-93	FY 93-94
Manpower in Support of Training	187	152	138	- 18.7%	- 9.2%
Training Workloads	239.0	182.4	176.1	- 23.7%	- 3.5%

Training Manpower Detailed by Service and Type of Training

Table VIII-9 shows the manpower required to support FY 1993 and FY 1994 training workloads by Service and training activity.

As was noted early in this chapter, training workloads, in conjunction with other factors, are the determinants of the resources required to conduct training. The workload/resource relationship is not a simple one, but depends upon the nature of training and training support involved. For example, Flight Training normally requires a great deal of support manpower for aircraft maintenance and weapons training requires close instructor supervision for safety considerations.

TABLE VIII-9. Training Manpower by Service and Type of Training
(Thousands)

FY 1993

	ARMY		NAVY		MARINE CORPS		AIR FORCE		DoD	
	Military	Civilian	Military	Civilian	Military	Civilian	Military	Civilian	Military	Civilian
Recruit	2.7	0.1	1.1	0.0	2.3	0.0	0.0	0.0	6.1	0.1
Officer Acquisition	0.7	0.8	0.8	0.9	0.2	0.0	1.0	0.7	2.7	2.4
Specialized Skill	14.2	4.2	17.5	0.8	5.2	0.2	5.1	2.0	42.0	7.2
Flight	1.0	0.3	4.7	0.4	0.9	0.0	2.8	0.8	9.4	1.5
Professional Development	0.7	0.8	0.5	0.9	0.3	0.1	1.1	0.5	2.6	2.3
Army One-Station Unit	3.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.2
Direct Support	7.7	3.4	0.0	0.2	0.0	0.0	0.7	0.6	8.4	4.2
Base Support	8.8	16.3	7.7	5.9	3.0	1.6	7.3	5.6	26.8	29.4
Management Headquarters	0.4	0.8	0.2	0.5	0.0	0.0	0.6	0.4	1.2	1.7
Total	39.7	26.9	32.5	9.6	11.9	1.9	18.6	10.6	102.7	49.0

**TABLE VIII-9 (Con't). Training Manpower by Service
and Type of Training**
(Thousands)

FY 1994

	ARMY		NAVY		MARINE CORPS		AIR FORCE		DoD	
	Military	Civilian	Military	Civilian	Military	Civilian	Military	Civilian	Military	Civilian
Recruit	2.5	0.1	0.9	0.0	2.3	0.0	0.4	0.0	6.1	0.1
Officer Acquisition	0.7	0.8	0.8	0.8	0.2	0.0	1.0	0.8	2.7	2.4
Specialized Skill	12.1	3.7	8.4	0.8	5.2	0.2	5.5	2.0	31.2	6.7
Flight	0.9	0.3	2.5	0.4	0.8	0.0	2.6	0.8	6.8	1.5
Professional Development	0.6	0.6	0.5	0.9	0.3	0.1	1.6	0.6	3.0	2.2
Army One-Station Unit	3.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.2
Direct Support	7.2	3.0	0.0	0.2	0.0	0.0	0.7	0.6	7.9	3.8
Base Support	7.4	14.1	13.0	5.6	2.9	1.6	6.6	5.3	29.9	26.6
Management Headquarters	0.4	0.7	0.2	0.5	0.0	0.0	0.6	0.4	1.2	1.6
Total	35.4	23.5	26.3	9.2	11.7	1.9	19.0	10.5	92.4	45.1

NOTE: The Service estimates of training attributable manpower include some staff and support manpower that does not contribute directly to the production of student output and loads but are reported as training resources in the Future Years Defense Program (FYDP) because they belong to larger organizations with a primary training mission.

Manpower data in the six categories of training (i.e., Recruit through One-Station Unit Training) includes instructors, school/training center staffs and student supervisors. Direct training support includes such tasks as training aids and literature, audiovisual resources, and instructional systems development.

TRAINING MANAGEMENT AND FUNDING

General Description

Chapters III through VII of this report describe and explain the military training student loads requested for each military component. These student loads represent patterns and levels of training effort which require manpower and other resources. The purpose of this chapter is to describe and explain the resources (other than manpower, which is discussed in Chapter VIII), funding and costs associated with the conduct of individual training.

In considering training resources, it is important to distinguish between the training loads required by a Service but conducted in part outside the Service, and the workloads representing training conducted by the Service. As discussed in the previous chapter, the workloads, which represent training conducted by a Service, are the basis for resource requirements (manpower, material, facilities and funds) needed to conduct and support the training that the Service executes.

Management of Individual Training

Detailed management of individual training is carried out by the four Military Services. Each of the Services, except the Marine Corps, has a training commander immediately subordinate to the Service chief who is responsible for most of the individual training conducted within that Service. Some training is managed directly by the Service headquarters. However, the most prevalent pattern of control is through a training command headquarters that manages most Service military schools, training centers and other training facilities.

Staff Responsibilities

Within the Office of the Secretary of Defense (OSD), staff responsibility for individual training and education policies rests with the Assistant Secretary of Defense (Personnel and Readiness), with a strong influence over the allocation and use of resources being exercised by the Assistant Secretary of Defense (Comptroller). These two offices work closely together in the staff supervision of DoD individual training and education. The OSD role is generally one of policy formulation, allocation of resources, overview of Service training programs and coordination among the Services.

Within each Service headquarters, with exception of the Marine Corps, a principal staff officer has responsibility for individual training. Other staff members may have primary responsibility for certain types of training, for example, a Service Surgeon General for professional medical training. Other staff members have collateral responsibilities for the allocation of manpower and funds to the training function.

Primary responsibility on the Army staff for individual training rests with the Deputy Chief of Staff for Operations and Plans and his subordinate, the Director of Training. Within the Navy, the principal staff officer is the Deputy Chief of Naval Operations for Manpower, Personnel, and Training. The Deputy Commander for Training and Education acts as the principal training advisor to the Commandant of Marine Corps, through the Commanding General, Marine Corps Combat Development Command (MCCDC). Within the Air Force, the Director of Personnel Programs, under the Deputy Chief of Staff for Personnel, has staff responsibility for individual training.

Training Commands

Each Service has a command headquarters that manages most of the individual training conducted by that Service:

- The Army's principal training command is Headquarters, Training and Doctrine Command (TRADOC), located at Fort Monroe, Virginia. TRADOC's control is exercised through training installations and school commanders throughout the United States.

- The Chief of Naval Education and Training (CNET), headquartered at Pensacola, Florida, exercises control, through subordinate functional commanders, of education and training conducted in training centers, schools, and programs throughout the Navy.

- For the Air Force, Headquarters, Air Education and Training Command at Randolph Air Force Base, Texas, directly controls individual training centers and units.

- For the Marine Corps, the Deputy Commander for Training and Education, Quantico, Virginia, also functions as the Commander, Marine Corps Schools and exercises command, operational control, technical direction, and/or coordination for all Marine Corps formal schools and training centers.

The Service-wide training commands are not responsible for all individual training and education conducted. As already noted, the Surgeons General are responsible for most health professional and medical technical training. Other examples include the Service Academies, which are under the direct supervision of the respective Service Chiefs.

The Services' training command commanders and the Marine Corps Deputy Commander for Education and Training are also the senior members of the Interservice Training Review Organization (ITRO). The ITRO was formed in 1972 to facilitate cooperative training efforts among the Services. The committees and working groups of the organization perform the detailed analysis which becomes the basis for decisions on the feasibility of consolidation of training courses or other cooperative arrangements. A listing of major joint training efforts is provided in Appendix B.

Training Funding and Costs

The training costs addressed in this section include funding in the President's Budget for FY 1993 and FY 1994 requested for individual military training and education. Depreciation costs of training facilities and equipment are not included, although training investment costs estimated for FY 1993 and FY 1994, such as procurement and construction costs, are included. The report uses the data in the DoD's Future Year Defense Program (FYDP) as the basis for all estimates of the manpower and funds devoted to training and education.

The costs in this chapter include funding for military pay and allowances for assigned trainees and students, pay and allowances of military and civilian personnel in support of training, base operating costs, training related activities, training investment costs for construction and procurement, and overhead costs for training administration and command. Certain costs for activities at training installations support non-training missions (such as base operating support for non-training activities on training bases). These non-training costs are embedded in Program 8 and, therefore, are included in the costs shown in the tables in this chapter.

For a given Service, the requirement for funding for training arises from two factors. First is the need to fund the pay and allowances of its own military training student loads, regardless of where or by whom the students are trained. Second, the need to provide for the level of individual training and education effort necessary to meet the Service's commitments to accomplish training for its own and other students.

For comparability, the funding requests associated with ROTC and other non-load training programs are deleted from the following tables. Hence, the tables report FY 1993 and FY 1994 funding estimates that relate to the requested FY 1993 and FY 1994 training loads.

Special caution should be exercised in using these costs for comparisons among Services. Differences in missions among the Services, differing operating and training conditions, and differences in the mix of Service training programs degrade the soundness of comparisons based on aggregated data such as these.

Table IX-1 shows Army funding for individual training by category.

TABLE IX-1. Army Funding of Individual Training
(Millions)

	FY 90	FY 91	FY 92	FY 93	FY 94
Recruit Training	$ 357.4	$ 292.2	$ 430.6	$ 480.7	$ 330.9
Officer Acquisition Training	130.1	141.3	137.4	142.5	134.2
Specialized Skill Training	1,488.6	1,505.5	1,632.3	1,672.6	1,284.9
Flight Training	349.5	345.1	458.8	459.4	419.0
Professional Development Education	271.0	310.1	411.0	368.0	324.0
Army One-Station Unit Training	337.5	312.9	323.1	352.4	268.5
Direct Training Support	565.4	623.8	611.9	539.4	502.2
Base Training Support	1,632.1	1,885.9	1,752.5	1,349.5	1,445.4
Training Management Headquarters	61.1	68.4	68.3	58.7	46.2
Reserve Pay & Allowance	706.2	543.5	677.7	727.8	650.3
Total	$ 5,898.9	$ 6,028.7	$ 6,503.6	$ 6,151.0	$ 5,405.6

Funding for individual training is shown each year in Program 8 of the FYDP. A portion of the resources under Program 8 are not directly related to individual training. The Services sometimes include costs in Program 8 which support other training and activities in addition to individual institutional training. These costs are related to audiovisual support, training developments, base operations, real property maintenance, and headquarters management type activities.

Within Program 8, for example, the Army funds the Training and Doctrine Command (TRADOC). This command is responsible for Army-wide requirements for audiovisual and visually based instructional materials used for training individuals or units of the Army as a whole. Training Development activities, under TRADOC, produce resident and non-resident training programs and materials to meet the needs of the Army in the field as well as individual training at the Training Centers and Schools. TRADOC also funds combat development activities. The management of HQ, TRADOC is funded by Program 8 as is the real property maintenance (RPMA) and base operations (BASOPS) of all those posts designated as TRADOC installations. Although TRADOC installations may have tenants from other major commands, the RPMA and BASOPS are funded in Program 8.

Tables IX-2 and IX-3 show Navy and Marine Corps funding for individual training by category.

TABLE IX-2. Navy Funding of Individual Training
(Millions)

	FY 90	FY 91	FY 92	FY 93	FY 94
Recruit Training	$ 700.6	$ 576.7	$ 575.2	$ 564.1	$ 422.0
Officer Acquisition Training	206.5	210.0	209.9	206.1	195.0
Specialized Skill Training	1,892.0	2,033.4	1,879.8	1,824.7	1,544.3
Flight Training	876.2	919.5	1,149.4	1,046.2	1,071.2
Professional Development Education	212.1	239.7	264.1	232.9	219.4
Direct Training Support	206.5	173.6	178.4	123.6	119.2
Base Training Support	838.4	859.9	808.5	750.0	870.4
Training Management Headquarters	28.7	30.1	41.1	39.9	36.3
Reserve Pay & Allowance	48.3	44.1	49.6	36.2	36.8
Total	$5,009.3	$5,087.0	$5,156.0	$4,823.7	$4,514.6

TABLE IX-3. Marine Corps Funding of Individual Training
(Millions)

	FY 90	FY 91	FY 92	FY 93	FY 94
Recruit Training	$ 278.1	$ 269.4	$ 274.5	$ 297.9	$ 272.5
Officer Acquisition Training	15.6	17.9	20.1	15.0	13.8
Specialized Skill Training	554.2	537.5	601.7	623.8	559.4
Flight Training	62.8	70.9	72.6	55.8	54.4
Professional Development Education	54.7	57.7	62.0	62.9	60.9
Direct Training Support	33.6	39.8	49.3	42.1	50.2
Base Training Support	208.5	223.4	201.6	196.1	207.6
Training Management Headquarters	0.4	0.4	0.4	0.4	0.4
Reserve Pay & Allowance	92.8	64.5	71.9	87.1	83.2
Total	$1,300.7	$1,281.5	$1,354.1	$1,381.1	$1,302.4

Table IX-4 shows Air Force funding for individual training by category.

TABLE IX-4. Air Force Funding of Individual Training
(Millions)

	FY 90	FY 91	FY 92	FY 93	FY 94
Recruit Training	$ 153.7	$ 134.6	$ 155.3	$ 173.5	$ 135.6
Officer Acquisition Training	150.2	165.2	179.1	166.3	167.9
Specialized Skill Training	745.2	697.9	673.9	744.7	749.5
Flight Training	868.3	938.8	847.0	770.2	630.8
Professional Development Education	224.1	236.1	277.7	299.8	301.4
Direct Training Support	54.8	56.5	56.8	63.0	66.3
Base Training Support	969.3	996.8	916.9	806.5	841.5
Training Management Headquarters	59.2	67.2	69.3	62.8	60.2
Reserve Pay & Allowance	76.8	81.7	200.3	220.6	239.1
Total	$3,301.6	$3,374.8	$3,376.3	$3,307.4	$3,192.3

The funding tables in this chapter include student and trainee pay and allowances as well as pay and allowances for the staff and support manpower for each Service's training schools. This can produce significant distortions in the use of these aggregates for assessing training efficiency (e.g., in the Marine Corps, significant loads are trained by Army and Navy schools). Appendix C shows a distribution of funds for individual training by Service and appropriation. Funding of individual training for all DoD components by Service to include Defense medical training is shown in Table IX-5.

TABLE IX-5. Funding of Individual Training
by Service and Type of Training
(Millions)

FY 1993	Army	Navy	Marine Corps	Air Force	Total
Recruit Training	$ 480.7	$ 564.1	$ 297.9	$ 173.5	$1,516.2
Officer Acquisition Training	142.5	206.1	15.0	166.3	529.9
Specialized Skill Training	1,672.6	1,824.7	623.8	744.7	4,865.8
Flight Training	459.4	1,046.2	55.8	770.2	2,331.6
Professional Development Education	368.0	232.9	62.9	299.8	963.6
Army One-Station Unit Training	352.4	0.0	0.0	0.0	352.4
Direct Training Support	539.4	123.6	42.1	63.0	768.1
Base Training Support	1,349.5	750.0	196.1	806.5	3,102.1
Training Management Headquarters	58.7	39.9	0.4	62.8	161.8
Reserve Pay & Allowance	727.8	36.2	87.1	220.6	1,071.7
Total	$6,151.0	$4,823.7	$1,381.1	$3,307.4	$15,663.2

Table IX-5 (Con't). Funding of Individual Training
by Service and Type of Training
(Millions)

FY 1994	Army	Navy	Marine Corps	Air Force	Total
Recruit Training	$ 330.9	$ 422.2	$ 272.5	$ 135.6	$1,161.2
Officer Acquisition Training	134.2	195.0	13.8	167.9	510.9
Specialized Skill Training	1,284.9	1,544.3	559.4	749.5	4,138.1
Flight Training	419.0	1,071.2	54.4	630.8	2,175.4
Professional Development Education	324.0	219.4	60.9	301.4	905.7
Army One-Station Unit Training	268.5	0.0	0.0	0.0	268.5
Direct Training Support	502.2	119.2	50.2	66.3	737.9
Base Training Support	1,445.4	870.4	207.6	841.5	3,364.9
Training Management Headquarters	46.2	36.3	0.4	60.2	143.1
Reserve Pay & Allowance	650.3	36.8	83.2	239.1	1,009.4
Total	$5,405.6	$4,514.8	$1,302.4	$3,192.3	$14,415.1

Funding estimates in this chapter include substantial segments of cost which are not normally sensitive to significant shifts (up to fifteen percent) in training load. These include certain command, base, facility, and equipment costs. These "fixed" costs need to be considered in program and budget adjustments because, within a reasonable range of output, they remain approximately the same and do not vary as the training load varies. They change, instead, with decisions to change the manner of accomplishing training, most often through training investment decisions or base realignments.

There are often substantial year-to-year fluctuations in funding for fixed costs. These costs are termed "fixed", not because they do not change from year to year, but because their changes characteristically are not "variable" with changes in workloads from period to period. Funding of these costs reflects significant increases for years in which there are major procurements such as simulators, aircraft, or construction in support of training.

Fixed cost has important implications on of funding adjustments for changes in the level of activity or size of a training program. If training funds are to be adequate for the needs of a reduced program, they must be reduced by a smaller proportion than the program loads in order to account for fixed costs. By the same token, program increases, within reasonable capacity limits, may not require a proportional increase in total program funding.

APPENDIX A

DETERMINING TRAINING REQUIREMENTS

The following overview of the methodology for assessing and calculating training requirements is provided as a framework for understanding. As noted, details in calculation may differ to some extent among the Services and among the training categories.

Requirements

All training is accomplished to satisfy the need for personnel with certain types and levels of skills to man the approved or projected force. The Services, over the years, have developed detailed, systematic methods of determining the manpower needed to man and support the forces. The Defense Manpower Requirements Report discusses this process. From these force requirements for manpower the need for trained personnel with specific skills can then be derived. For example, a given force structure establishes the number of trained enlisted personnel needed. The number of authorized positions within that force structure for radar technicians establishes the basic requirement for trained personnel with that skill. This process is repeated periodically for all skills and skill levels for each Service, for both officer and enlisted skills. The total of all personnel in all skills needed to perform all the jobs in the force at a point in time represents the total requirement for trained manpower projected for that date.

Inventory Projections

The requirements identified through this process must be measured against the available assets, in terms of trained personnel on hand in each skill and skill level. From this asset base, estimates are made of how many trained personnel will be available at various points of time in the future. These estimates take into account probable rates of change to the current inventory -- through reenlistment, promotion, discharge, death, retirement, or other causes. These estimates are based on the best historical information available, tempered by judgment of how in the future personnel policies, the state of the economy, behavioral patterns, and other factors (many of them difficult to predict) will affect the probabilities that a trained individual will remain in the Service. A comparison of skill requirements and skill inventory projections, over time, establishes the extent of shortage or surplus likely to exist in each skill area by month and year. Adjusting the inventory may entail retraining personnel who are in surplus skills, but to a much greater degree, adjustment is likely to require the training of new accessions at entry level in shortage skill areas. The process places a demand on the personnel management and training establishments continually to analyze information

about attrition as it occurs, by skill and skill level, in order to produce the right number of trained personnel with the proper skills needed to restore and maintain the balance of the skill inventory. The workload thus placed on the training establishment is detailed by graduates needed from courses of various lengths and is measured in terms of average student load, or "training load."

Average Training Loads

Resources (manpower, money, and material) needed for any particular category of training vary with the number of students undergoing training at any given time. Facilities must be constructed and maintained to accommodate these students in training. The training establishment must maintain a sufficient staff of qualified instructors to conduct instruction for the "load" of students. Students and Trainees, as described in the "Individuals" chapter of the Defense Manpower Requirements Report, must be programmed to account for the fact that these personnel are in formal school training and are not available for duty with operational units. All of these personnel must be paid, housed, and supported. The basis for establishing these resource requirements is the "average training load."

The aggregate training load of courses of instruction within a given training category or sub-category is computed in accordance with the following formula, except as noted:

$$\frac{\text{Entrants + Graduates}}{2} \times \text{Course Length}^{1/} = \text{Load}$$

$\underline{1/}$ Training time is expressed as a fraction of a year

Training load data is calculated by class and aggregated by course and training category. Fractions of carryover classes conducted during the year are included as though they were separate classes. However, individuals remaining in class at the end of a period are not counted as graduates, nor are individuals already in a class at the beginning of a period counted as entrants except for purposes of computing training loads for these fractions of courses.

The training load for a category or sub-category of training (e.g., Specialized Skill Training or Functional Training within that category) is the sum of the loads computed for all classes of courses within the category or sub-category. This formula is also used at the course level or training category level when detailed estimates by class are not available.

This method of computation implies "straight-line" attrition, that is, net class attrition occurs at a constant rate during a course. More detailed methods to calculate the impact of attrition for computation of load are used when better information is available. This is particularly true for high cost courses such as within flight training programs.

Since attrition varies for different training programs and is not always spread uniformly throughout the length of a course of training, determining training loads becomes a

complex problem in estimation. This process of estimation involves two related factors.

First, across the spectrum of training programs that are within the scope of this report, attrition varies from nearly zero to as high as 25 to 30 percent. Most officer Professional Development Education programs have practically no attrition. For FY 1993 and 1994, the Services estimate that about 8 percent of new recruits on a DoD wide basis will not complete Recruit Training because they will not have the mental or physical qualifications, or the motivation, for military life. Attrition rates in Specialized Skill Training vary widely, with the longer and more demanding courses tending to have higher losses. Pilot training is near the top of the scale in attrition. The higher rate of losses is based on lack of aptitude or motivation for flying, accidents and similar causes which are intensified in this type of training. While historical data provide a basis for projecting attrition rates for all types of training there is a considerable possibility for error based on variance in such factors as student quality and motivation.

A second necessary step in evaluating the effect of attrition is to estimate the phasing of attrition for each training program. In some courses, attrition tends to be higher in the early stages of a course when those less skilled or lacking motivation are discovered. In other courses, the bulk of attrition may occur toward the end of the course. The patterns of losses vary widely among types of training and over time. The complexities of the attrition variable make it necessary for the Services to use computer simulations in their training load calculations which take into account the rates and time-phasing of attrition.

An additional variation is introduced into the conceptual process of forecasting requirements and planning training loads as described above by the seasonal and cyclical nature of new accessions to the Services. Inputs to many of the more stable training programs -- Professional Development Education, Flight Training, the Service Academies, and the most advanced portions of Specialized Skill Training -- are readily predictable. Inputs to the training programs which are dependent on new accessions (Recruit Training and Initial Skill Training for graduates of Recruit Training) are considerably more volatile. The volume of inputs to these types of training depends on such intangibles as job opportunities in the civilian economy and the decisions of young people to enlist, delay enlisting, or not enlist. Moreover, enlistments are seasonal in nature, following a long-term pattern of "good" and "bad" recruiting months, where phased requirements may move independently of these seasonal patterns. As a result, training loads for the initial active duty training programs are generally based on a compromise involving the timing of predicted enlistments and the capacity of the training base as well as when the new personnel are needed to fill vacancies in the job structure. Most of the courses in these programs are relatively short, and program adjustments can readily be made.

APPENDIX B

SELECTED MAJOR COURSES/SKILL AREAS

TRAINED IN OTHER SERVICES

Sponsoring Service	Major Interservice Course/ Skill Areas	Participating Services
Army	Construction Equipment Operator	Marine Corps
Army	Airborne	Navy Marine Corps Air Force
Army	Artillery	Marine Corps
Army	Armor	Marine Corps
Army	Explosive Ordnance Disposal	Navy Air Force Marine Corps
Army	Joint Tactical Communications Systems (TRI-TAC)	Navy Air Force Marine Corps
Army	Stinger/Redeye Missile	Navy Air Force Marine Corps
Army	Satellite Communications Fundamentals	Navy Air Force Marine Corps
Army	Tracked Vehicle Repair	Marine Corps Air Force
Army	Correctional Specialist	Navy
Army	Postal Operations	Navy Air Force
Army	Biomedical Equipment Specialist (Basic and Advanced)	Navy Coast Guard

Sponsoring Service	Major Interservice Course/ Skill Areas	Participating Services
Army	Behavioral Science Specialist	Air Force Marine Corps
Army	Medical Laboratory Specialist (Basic)	Navy Coast Guard
Army	Psychiatric Specialist	Navy
Army	Veterinary Specialist (Basic)	Air Force Marine Corps
Army	Laser Microwave Hazards	Navy Air Force
Army	Tropical Medicine	Air Force
Army	Respiratory Specialist	Navy
Army	Occupational Therapy Specialist	Air Force
Army	Advanced Digital Theory	Navy
Navy	Aviation Maintenance	Marine Corps
Navy	Flight Training	Marine Corps Coast Guard
Navy	Cryptologic Courses	Army Marine Corps Air Force
Navy	Diving	Army Marine Corps Air Force Coast Guard
Navy	Musician	Army Marine Corps
Navy	Explosive Ordinance Disposal	Army Marine Corps Air Force

Sponsoring Service	Major Interservice Course/ Skill Areas	Participating Services
Navy	Cryptographic Maintenance	Marine Corps Air Force Coast Guard
Navy	Teletype Maintenance	Marine Corps
Navy	Joint and Combined Planning and Operations	Army Marine Corps Air Force Coast Guard
Navy	Military Justice	Marine Corps Coast Guard
Navy	Shipboard Firefighting	Marine Corps Coast Guard
Navy	Corrosion Control	Coast Guard
Navy	Damage Control	Coast Guard
Navy	Supply Support	Marine Corps
Navy	Underwater Construction	Army
Navy	SERE, Code of Conduct	Marine Corps
Navy	Causeway Barge Ferry Training	Army
Marine Corps	Assembler Language IBM S/360	Air Force Navy
Marine Corps	COBOL Programming IBM S/360 (OS)	Navy
Marine Corps	FORTRAN Programming IBM 360	Air Force
Marine Corps	Data Management IBM S/360 (OS)	Air Force
Marine Corps	System Programmer	Navy
Marine Corps	FORTRAN Programming Special	Navy
Air Force	Navigator Training	Navy Marine Corps

Sponsoring Service	Major Interservice Course/ Skill Areas	Participating Services
Air Force	Tempest (Cryptologic Courses)	Army Navy Marine Corps
Air Force	Cryptologic Equipment Maintenance	Army Navy Marine Corps
Air Force	Precision Measurement Training	Army Marine Corps
Air Force	Aircraft Repair	Army
Air Force	Weather Training	Army Navy Marine Corps
Air Force	Military Dog Handler	Army Navy Marine Corps
Air Force	Law Enforcement	Navy Marine Corps
Air Force	Fire Protection Specialist	Army
Air Force	Nondestruct Inspection	Army
Air Force	Defense Sensor Interpretation and Application Training	Army Navy Marine Corps
Air Force	Air Intelligence Training	Army Navy Marine Corps
Air Force	Lineman Training	Army

Sponsoring Service	Major Interservice Course/ Skill Areas	Participating Services
Air Force	Professional Comptroller	Army Navy Marine Corps
Air Force	Radio Communications Analysis	Army Navy Marine Corps
Air Force	Voice Processing	Army Marine Corps
Air Force	Cryptoanalysis	Army Navy Marine Corps
Air Force	Imagery Production	Marine Corps
Air Force	Citicomm/Maintenance Courses	Army Navy
Air Force	Graphic Specialist	Army Navy Marine Corps
Air Force	Visual Information	Army Marine Corps
Air Force	Nuclear Weapons Training	Army Navy Marine Corps
Air Force	Nuclear Hazards/Accident	Army Navy Marine Corps
Air Force	Cable and Antenna Installation and Maintenance	Army Marine Corps
Air Force	Depot Maintenance	Navy
Air Force	Airlift of Hazardous Material	Navy Marine Corps Coast Guard

Sponsoring Service	Major Interservice Course/ Skill Areas	Participating Services
Air Force	Traffic Management and Accident Investigation	Army Navy Marine Corps
Air Force	AF Senior NCO Academy	Army Navy Marine Corps
Air Force	Wartime Planning Courses	Army Navy Marine Corps
Air Force	JAG Law Courses	Army Navy Marine Corps
Air Force	Engineering Application Courses	Army Navy
Air Force	Acquisition Application Courses	Army Navy Marine Corps
Air Force	Environmental Management Courses	Army Navy
Air Force	Housing Service Management Courses	Army Navy
Air Force	Contracting Management Courses	Army
Air Force	Management Courses	Army
Air Force	Systems Acquisition Management Courses	Army
Air Force	USAF School of Aerospace Medicine	Coast Guard
Air Force	Weapons Systems	Army Navy Marine Corps
Air Force	Joint Space Intelligence Operations Course	Army Navy
Air Force	Air Force Quality Center	Army Navy Marine Corps

APPENDIX C
Summary of Total Funding for Individual Training and Education
by Service and Appropriation, FY 1992-1994
($ Millions)

Appropriation	FY 1992	FY 1993	FY 1994
Army			
Operation and Maintenance	$ 2,238.5	$ 2,014.4	$ 1,967.3
Military Personnel	3,292.2	3,250.3	2,413.1
Reserve Personnel	338.7	377.3	312.8
National Guard Personnel	338.9	350.5	337.5
Aircraft Procurement	99.8	42.5	15.3
Missile Procurement	1.0	2.5	2.9
Weapons Procurement	5.3	5.7	5.8
Other Procurement	43.1	61.7	37.9
Military Construction	145.9	46.2	312.9
Total Army	$ 6,503.4	$ 6,151.1	$ 5,405.5
Navy			
Operation and Maintenance	$ 1,298.4	$ 1,214.2	$ 1,256.1
Military Personnel	3,091.1	3,016.2	2,676.1
Reserve Personnel	49.7	36.2	36.8
Aircraft Procurement	442.9	346.7	413.7
Other Procurement	122.8	109.7	70.5
Military Construction	103.1	51.5	28.9
Research & Development	48.1	49.2	32.6
Total Navy	$ 5,156.1	$ 4,823.7	$ 4,514.7
Marine Corps			
Operation and Maintenance	$ 192.9	$ 180.7	$ 193.0
Military Personnel	1,083.5	1,100.9	1,014.8
Reserve Personnel	71.9	87.1	83.2
Other Procurement	5.9	12.4	11.5
Total Marine Corps	$ 1,354.2	$ 1,381.1	$ 1,302.5
Air Force			
Operation and Maintenance	$ 1,119.4	$ 1,047.8	$ 1,314.7
Military Personnel	1,725.9	1,772.1	1,515.4
Reserve Personnel	95.4	112.1	118.5
National Guard Personnel	104.9	108.5	120.6
Aircraft Procurement	234.2	214.2	19.0
Other Procurement	32.8	19.1	16.6
Military Construction	64.0	33.7	85.5
Research & Development	0.0	0.0	1.9
Total Air Force	$ 3,376.6	$ 3,307.5	$ 3,192.2

Appendix D

Comparison of Training and Education O&M Funding in the MMTR and O&M Budget Overview

ARMY
Operation and Maintenance (O&M) Appropriation
Training and Education (Program 8)
($ Millions)

	FY 1994 Estimate
Budget Overview (O&M Funding) *	2,098.9
Audit Trail to MMTR	
Budget Overview: Training Support	- 349.8
Budget Overview: Base Support	-1,033.1
MMTR: Training Support	293.4
MMTR: Base Support	967.2
MMTR (O&M Funding)	1,976.6

* Budget overview includes $9.2 M for Personnel Processing Activities

NAVY
Operation and Maintenance (O&M) Appropriation
Training and Education (Program 8)
($ Millions)

	FY 1994 Estimate
Budget Overview (O&M Funding) *	1,371.0
Audit Trail to MMTR	
Budget Overview: Training Support	- 142.3
Budget Overview: Base Support	- 550.6
MMTR: Training Support	140.6
MMTR: Base Support	489.9
MMTR (O&M Funding)	1,308.6

* Budget Overview includes PCS

MARINE CORPS
Operation and Maintenance (O&M) Appropriation
Training and Education (Program 8)
($ Millions)

	FY 1994 Estimate
Budget Overview (O&M Funding)	200.0
Audit Trail to MMTR	
Budget Overview: Training Support	- 49.7
Budget Overview: Base Support	- 118.1
MMTR: Training Support	41.1
MMTR: Base Support	119.7
MMTR (O&M Funding)	193.0

AIR FORCE
Operation and Maintenance (O&M) Appropriation
Training and Education (Program 8)
($ Millions)

	FY 1994 Estimate
Budget Overview (O&M Funding)	1,358.0
Audit Trail to MMTR	
Budget Overview: Training Support	- 69.7
Budget Overview: Base Support	- 567.3
MMTR: Training Support	59.4
MMTR: Base Support	534.5
MMTR (O&M Funding)	1,314.9

Training and Education
O&M Funding by Category by Service
(Millions)

	FY 1994 Estimate	
Recruit Training		
Army	16.3	(25.5)a/
Navy	4.5	
Marine Corps	5.4	
Air Force	4.7	
Total	30.9	
Officer Acquisition		
Army	44.3	
Navy	54.6	
Marine Corps	0.2	
Air Force	44.7	
Total	143.8	
Specialized Skill Training		
Army	327.3	
Navy	174.9	(227.2)b/
Marine Corps	19.5	
Air Force	208.4	
Total	730.1	
Flight Training		
Army	257.4	
Navy	334.8	
Marine Corps	0.2	
Air Force	381.6	
Total	974.0	
Profesionnal Development		
Army	61.5	
Navy	56.8	
Marine Corps	6.9	
Air Force	81.6	
Total	206.8	

Note: Numbers in parentheses( ) are from O&M Budget Overview.
a/ O&M Budget Overview includes personnel processing activities.
b/ O&M Budget Overview includes temporary duty non institutional training support.

	FY 1994 Estimate	
Direct Support		
Army	293.4	(349.8)c/
Navy	140.6	(142.3)c/
Marine Corps	41.1	(49.7)c/
Air Force	59.4	(69.7)c/
Total	534.5	
Training Base Support		
Army	967.2	(1033.1)c/
Navy	489.9	(550.6)c/
Marine Corps	119.7	(118.1)c/
Air Force	534.5	(567.3)c/
Total	2,111.3	
Total	4,731.4	

Note: Numbers in parentheses( ) are from O&M Budget Overview.
c/ O&M Budget Overview includes training support costs not attributable to the individual training conducted at schools